Chapter 7A: Comprehensive Everglades Restoration Plan Annual Report

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SUMMARY

Chapter 7A of the *2006 South Florida Environmental Report – Volume I* is the Comprehensive Everglades Restoration Plan (CERP) Annual Report from the South Florida Water Management District (District or SFWMD) and the Florida Department of Environmental Protection (FDEP) including CERP financial information and the progress of CERP implementation information for Fiscal Year 2005 (FY2005) (October 1, 2004 through September 30, 2005). The U.S. Congress approved CERP under the Water Resources Development Act (WRDA) of 2000, and authorized the first ten projects and six pilot projects. The District is the major local sponsor of CERP, and of related feasibility studies for Florida Bay/Florida Keys and Southwest Florida, and of seven critical restoration projects. The success of this monumental initiative is being continuously monitored through RECOVER (Restoration Coordination and Verification), which is presented in Chapter 7B of this volume.

The District is partnering with the U.S. Army Corps of Engineers (USACE) to implement CERP, which is planned to be implemented over more than three decades. It is focused largely on increasing water storage and improving the timing, quality, and distribution of water deliveries to the ecosystem. CERP's goal is twofold: to restore, preserve and protect South Florida's ecosystem; and to provide for other water-related needs of the region, including water supply, and flood protection. Strategies for achieving this goal include implementing an expedited initiative, Acceler8, continuing to acquire necessary land and completing Project Implementation Reports (PIRs). Implementation of program-level management activities, including adaptive assessment and monitoring, are ongoing. Outreach and partnering with stakeholders and communities are essential to the success of this effort, as is coordination among CERP, Acceler8, and other projects affecting the Greater Everglades ecosystem.

During FY2005, the District and the state of Florida launched the Acceler8 initiative, an expedited course to revitalize the ecosystem by stepping up the pace on eight restoration projects. By accelerating the funding, design and construction of these projects, the Everglades will experience positive benefits much sooner and in a more cost-effective manner. Funds needed for construction will be significantly leveraged through the District's financing with Certificates of Participation revenue bonding. Most of the land for these projects has already been acquired, with much of it purchased in partnership with the federal government. Building these projects on an accelerated pace is a major economic undertaking that is expected to generate a large demand for goods and services, so special efforts are being made to ensure utilization of a variety of vendors

and contractors; and workforce development partnerships are under way to help provide local workers with needed job skills. In addition to environmental improvements, Accerle8 projects will provide additional flood control and water supply options, along with the potential for recreational opportunities. One of the District's strategic priorities is to expedite construction and operation of Everglades restoration projects through Acceler8, so these projects are being implemented in a dual track mode, with the USACE and the District continuing planning for Acceler8 and other CERP projects; while the District proceeds with detailed design and construction of the Acceler8 projects.

The key highlights of these CERP projects for this annual update are presented below.

- Innovative partnerships and creative approaches have accomplished several major acquisitions to increase the land available to implement CERP. As of the end of the third quarter of FY2005, 209,390 acres have been acquired. Significant acquisitions during the fiscal year include parcels for C-44 Reservoir/Stormwater Treatment Area (STA); Water Conservation Areas 3A and 3B (WCA-3A/3B) Levee Seepage Management Project; Biscayne Bay Coastal Wetlands; Indian River Lagoon-South C-23/24 Reservoir and STA, along with the Cypress Creek complex; C-51/L-8 Reservoir, a component of North Palm Beach County – Part 1; and Picayune Strand Restoration Project.

- Construction of the Western C-11 Water Quality Critical Restoration Project was completed and the S-381 structure on the C-11 canal was turned over from the USACE to the District in March 2005. Implementation is continuing on the remaining critical restoration projects.

- The District continued with design and permitting activities for the Aquifer Storage and Recovery Pilot projects, which will investigate technology previously untried on the scale envisioned in CERP. Although congressional authorization and appropriation delayed the Lake Okeechobee and Caloosahatchee pilot projects, the District awarded a contract for construction of the Hillsboro pilot in July 2005.

- The North Palm Beach County – Part 1 Project Management Plan was approved in the third quarter, and construction on the G-161 structure and widening of the M canal will begin during the fourth quarter of FY2005. Construction of the L-8 pump station will start and construction of the G-161 structure is scheduled to be complete in FY2006. Overall, this project will increase water supplies to the Grassy Waters Preserve and Loxahatchee Slough, enhance hydropatterns in the slough, increase base flows to the Northwest Fork of the Loxahatchee River, and reduce high discharges to the Lake Worth Lagoon.

- The Indian River Lagoon – South Plan, which will create habitat improvement in the St. Lucie Estuary (SLE) and the Indian River Lagoon (IRL), and the Picayune Strand Restoration Project are awaiting WRDA authorization.

- The Master Implementation Sequencing Plan was completed in the second quarter of FY2005. By the end of the fiscal year, it is anticipated that the agreement for Interim Goals will be executed and the Notice of Availability for Interim Targets will be published in the Federal Register. In September 2005, the RECOVER and Adaptive Assessment and Monitoring Programs are scheduled to complete the Initial CERP Update and the Five Year Report to the U.S. Congress.

- Development of the Southwest Florida and Florida Bay/Keys Feasibility Studies continued during FY2005. These studies will investigate conceptual designs and make regional recommendations for meeting the future needs of agricultural, urban and environmental users. This includes determining the modifications needed to successfully restore and protect the water quality and ecological conditions of Florida Bay and the Florida Keys' reef tract.

- Implementation continued during FY2005 on management plans for program controls, programmatic regulations, public outreach, environmental and economic equity, data management, recreation, adaptive assessment and monitoring, and systemwide modeling.

- The Acme Basin B PIR and Construction Notice to Proceed are on schedule to be completed and issued during FY2006. This project will provide water to the Arthur R. Marshall Loxahatchee National Wildlife Refuge that would otherwise be lost to tide.

- The PIR for the Everglades Agricultural Area Storage Reservoirs is scheduled to be completed, and the Construction Notice to Proceed for the Phase 1A Reservoir is scheduled to be issued in FY2006. Inclusion of this project in Acceler8 will result in construction completing in 2009, three years ahead of schedule.

- The Broward County Water Preserve Area PIR will be completed, and the Notice to Proceed for construction of WCA-3A/3B Seepage Management and C-9 and C-11 Impoundment components are scheduled to be issued in FY2006.

- Ten Mile Creek construction is on schedule to be completed in FY2006. This critical restoration project will moderate high water volume freshwater flows and salinity fluctuations in the SLE and reduce sediment and nutrient loads to benefit estuarine habitat.

- Earthwork for the Lake Trafford Restoration Critical Project, which will improve water quality, will be completed during FY2006, and by mid-fiscal year, 50 percent of organic sediment will be dredged from the lake bottom.

- Construction on the former New Palm/Newcomer Dairy site of the 780-acre Nubbin Slough STA, a component of the Lake Okeechobee Water Retention/Phosphorus Removal Critical Restoration Project, is expected to be completed during FY2006.

- Western Tamiami Trail Culverts Critical Restoration Project construction will be completed during FY2006. The Tamiami Trail Phase 1 work has been incorporated into the Picayune Strand PIR, which will make this work fully eligible for cost sharing once authorized by the U.S. Congress.

- The Interagency Modeling Center will complete regional model runs for the Aquifer Storage and Recovery Contingency Plan and Sea Level Rise Sensitivity Analysis during the second and third quarters of FY2006, respectively.

INTRODUCTION

The Comprehensive Everglades Restoration Plan (CERP) is the framework and guide for the restoration, protection, and preservation of the water resources of Central and South Florida, including the Everglades. CERP also provides for other water-related needs of the South Florida region, such as water supply and flood protection. CERP covers 16 counties over an 18,000-square-mile area, and centers on an update of the Central and Southern Florida (C&SF) Project. The C&SF Project is a multi-purpose project, which was first authorized in 1948 to provide flood control, water control, water supply, and other services to the area that stretches from Florida to Florida Bay. For the past 50 years, the C&SF Project has performed its authorized functions well, albeit with unintended adverse effects on the unique and diverse environment that constitutes South Florida ecosystems, including the Everglades and Florida Bay.

The Water Resources Development Act (WRDA) in 1992 and 1996 provided the U.S. Army Corps of Engineers (USACE) the authority to reevaluate the C&SF Project and to recommend improvements or modifications. The resulting comprehensive plan – the CERP – was designed to capture, store and redistribute fresh water previously lost to tide and to regulate the quality, quantity, timing, and distribution of flows. The 2000 WRDA, Section 601, authorizes the Comprehensive Plan and requires that it be integrated with existing federal and state activities in accordance with the 1996 WRDA, Section 528.

The problems with declining ecosystem health, as well as the solutions to Everglades restoration, can be framed by four interrelated factors: quantity, quality, timing and distribution of water. Hence, the goal of CERP is to deliver the right amount of water, of the right quality to the right places and at the right time. Getting the water right is the critical part of restoring the South Florida ecosystem. CERP is the cornerstone of efforts to get the water right because it addresses problems on a regional basis and because it reflects the commitment of federal, state, local, and tribal entities to achieve restoration.

CERP is comprised of more than 50 major projects involving either structural or operational changes to modify the Central and Southern Florida (C&SF) Project. The hydrologic improvements described in CERP are expected to yield natural environment responses and to improve the Everglades ecosystem. The South Florida Water Management District (SFWMD or District) is the local sponsor for implementation of most of the projects indicated in CERP. The District was created to deal with floods and drought. Today, the agency's responsibilities include regional flood control, water supply, and water quality protection, as well as ecosystem protection.

CERP includes pilot projects, which will resolve technical uncertainties related to the use of various technologies to accomplish the modifications necessary to restore the South Florida ecosystem. Feasibility studies will determine the need for additional projects to accomplish restoration goals that have been established for particular regions. Several critical restoration projects launched prior to the authorization of CERP were incorporated into the plan and are under way. Through the implementation of CERP, Florida is keeping its commitment to the Everglades. Restoration of the famed "River of Grass" already is producing environmental results – saving endangered wildlife, restoring wetlands, and replenishing underground water supplies.

In order to provide enhanced oversight and accountability for the financial commitments established under the Everglades restoration section and the progress made in the implementation of CERP, Section 373.470(7), Florida Statutes (F.S.), as amended during 2005, requires an annual

report. The District, in cooperation with the Florida Department of Environmental Protection (FDEP), which conserves and manages Florida's natural resources and enforces the state's environmental laws, prepares the CERP Annual Report annually. This report is now included as Chapter 7A of the *2006 South Florida Environmental Report – Volume I* (SFER), as required by Section 373.036(7), F.S.

This CERP Annual Report includes information regarding the Conservation and Recreation Lands Trust Fund, the Land Acquisition Trust Fund, the Preservation 2000 Trust Fund, the Florida Forever Trust Fund, the Save Our Everglades Trust Fund, and other named funds or accounts for the acquisition or construction of project components, features, or facilities that benefit the CERP. This chapter also identifies state and local sponsor revenues and itemizes expenditures related to implementation of the CERP. It describes the purpose for which the funds were expended, provides the unencumbered fund balance remaining for implementation of CERP and provides a schedule of anticipated expenditures for the next fiscal year. This document fulfills the statutory requirements and includes CERP financial information and the progress of CERP implementation information for Fiscal Year 2005 (FY2005) (October 1, 2004 through September 30, 2005). [Note that FY2005 details are not provided in this draft document, as this information will not be available until the District's and the FDEP's books are closed for the fiscal year; however, this information will be available for the final report.]

At this stage of CERP implementation, the District and USACE are acquiring land, developing and administering program-level functions, conducting pilot projects and feasibility studies, engaging stakeholders, developing Project Implementation Reports (PIRs), performing detailed engineering and technical analyses and design, and executing construction projects. With more than 250,000 acres of land needed to complete restoration of the Everglades already in public ownership, Florida's share of Everglades restoration is ahead of schedule and under budget. Since 2000, more than $2.5 billion has been committed through the end of the decade to clean up and restore the unique mosaic of sawgrass prairies, hardwood hammocks, cypress swamps, coastal lagoons, mangroves, and pinelands that comprises the Everglades.

FISCAL YEAR 2005 HIGHLIGHTS

This section highlights CERP-related activities completed during FY2005. Overall, the District's CERP land acquisition activities for FY2005 totaled $X million, which was used to purchase X acres. Lands were acquired for the X projects.

In October 2004, the governor of Florida announced Acceler8, an aggressive initiative to advance the funding, design and construction of projects in order to accelerate the pace of restoring America's Everglades. This initiative, which was endorsed unanimously by the District's Governing Board in November, will achieve 70 percent of the restoration plan's goals by 2011 – five years ahead of the current schedule and over a decade ahead of anticipated federal and state cash flows – while maintaining the momentum of CERP.

The District will finance construction of Acceler8 with Certificates of Participation revenue bonding. The projected total cost of the Acceler8 projects is $1.5 billion. The Basis of Design, as well as design work, geotechnical investigations, modeling, tentatively selected plans, and surveying programs, is in progress for most of these projects. The Acceler8 web site at www.evergladesnow.org contains continuing information on this initiative and provides project-specific details.

The District and the USACE have been performing detailed planning and design of CERP projects in accordance with the approved Master Implementation Schedule, which was published in July 2001. In March 2005, a revised Master Implementation Sequencing Plan (www.evergladesplan.org/pm/pm_docs/misp/040605_misp_report_1.0.pdf), as required by the CERP Programmatic Regulations, was completed by the SFWMD and USACE. This plan examined all CERP projects to confirm that they are correctly assembled and that the correct relationships exist between these projects.

The Master Implementation Sequencing Plan (MISP) was published in March 2005. The MISP builds on previous efforts and incorporates new information, implementation experience to date and changes in legislation. Some of the new information includes the requirements in the 2000 WRDA and the programmatic regulations, as well as the effects of the streamlining contained in the state's Acceler8 initiative. These items will make CERP implementation more efficient while staying true to the logic relationships of the MISP and the partnership between the District and the USACE.

A successful Construction Symposium was held in June 2005 to bring together the construction community to introduce Acceler8 and other District projects. There were 15 presentations during the full-day event, which addressed the program, projects, outreach, and procurement of the District. There were over 600 participants and over 50 exhibits.

In July 2005, the District's Governing Board approved the construction contract for the Hillsboro Aquifer Storage and Recovery (ASR) Pilot Project. This subsurface reservoir, in which water will be stored in the many voids that comprise the limestone formation of the upper Floridan aquifer, is the first of the planned pilot projects to explore the viability of building ASR wells and to store 1.7 billion gallons of stormwater that otherwise will be lost to tide.

The Indian River Lagoon – South Plan is a cornerstone of CERP. In July 2005, the U.S. House of Representatives passed the $1.2 billion Indian River Lagoon – South Restoration Project/Water Resources Development Act. This WRDA bill requires U.S. Senate approval before being authorized, although there is strong support for the act from states other than Florida. The plan includes reservoir and natural area storage, Stormwater Treatment Areas (STAs), and muck removal to improve water quality in the St. Lucie Estuary (SLE) and the Indian River Lagoon (IRL). The estimated total cost of $1.2 billion will be shared equally between the state and federal governments.

The Picayune Strand project's two miles of newly filled canals already are reducing freshwater drainage, elevating groundwater levels, and replenishing the wetland habitat. During FY2005, the Basis of Design for pump stations has proceeded, advance demolition of existing structures has been finalized, and construction is scheduled to begin in September 2006.

For the Lake Okeechobee Water Retention/Phosphorus Removal Critical Project, construction has continued on schedule for the Taylor Creek and Nubbin Slough STAs. These projects will reduce basin runoff and improve the water quality of tributaries flowing into the lake. The 190-acre STA on Grassy Land Ranch on Taylor Creek is scheduled to be completed in FY2005, and the 780-acre Nubbin Slough STA on the former New Palm/Newcomer Dairy site is scheduled to be completed in FY2006.

Additional information is available on the CERP web site at www.evergladesplan.org. This web site provides current information on all aspects of CERP implementation including history, news, events, public meetings, resources, educational materials, and progress reports for the programs, projects, and studies that comprise CERP implementation.

HISTORY

As recently as a century ago, for most of each year, the terrain of South Florida was wet. Because the land is so flat, during the wet season (May–October) water could flow from lake to lake, spill over natural river channels, and spread into floodplains. There were no barriers or canals to direct or control the path of water. In the aftermath of storms, water could stand for weeks or months. During the drier winter and spring months, drought was a common problem, with geography having sentenced South Florida to total dependence on rainfall. From the mid-1800s to the mid-1900s, attempts to control the water were based upon dredging and draining. After many years of severe hurricanes, and then drought, followed by more deadly storms, the state of Florida requested that the federal government provide a master plan to address impacts associated with natural disasters.

In 1948, the U.S. Congress authorized the Central and Southern (C&SF) Flood Control Project, the largest civil works project in the country, to provide flood control, water control, water supply, and other services. Construction of this multi-purpose project began the following year, and continued for over two decades. The project stretched from south of Orlando to Florida Bay, and consisted of canals and levees and associated water control structures and pump stations to send water south and though waterways eastward and westward to the coasts. In 1949, the Florida legislature created the C&SF Flood Control District to manage the project. The Florida Water Resources Act of 1972 (Chapter 373, F.S.) created five water management districts with expanded responsibilities for regional water resource management and environmental protection. In 1976, voters approved a constitutional amendment giving the districts the authority to levy property taxes to fund these activities.

The South Florida Water Management District oversees water resources in the southern half of the state. It manages water in one of the most diverse ecosystems in the world, the Kissimmee-Okeechobee-Everglades system, which stretches 240 miles from Orlando to the Florida Keys. The District operates and maintains approximately 1,800 miles of canals and levees, 25 major pumping stations, and approximately 2,200 water control structures.

For nearly half a century, the C&SF system has performed its authorized functions well. However, it had unintended adverse effects on the unique and diverse environment that constitutes South Florida's ecosystems, including the Everglades and Florida Bay. Altered natural areas became inhospitable to native wildlife, the numbers of wading birds decreased along with the amount of floodplains, and the Everglades dramatically decreased in size. The C&SF system continued to provide water supply, flood protection, water management, and other benefits to South Florida, which enabled urban development and agricultural production to flourish. The system that was designed to serve two million people was serving a population of nearly seven million by the 1990s. As a result, a plan was needed to provide the right amount of water and the right flow conditions to the Everglades while providing water for urban and agricultural needs for a 50-year population projection.

The C&SF Project Comprehensive Review Study (Restudy) was authorized for the purpose of reexamining the C&SF Project to determine the feasibility of modifying the project to improve the sustainability of South Florida. Specifically, the study was required to investigate structural and operational modifications for improving the quality of the environment, protection of the aquifer, urban and agricultural water supplies, and other water-related purposes. More information on the Restudy is available on the CERP web site at www.evergladesplan.org/pub/restudy_eis.cfm.

Since the passage of the 1986 WRDA, planning for USACE projects is accomplished in two phases: reconnaissance and feasibility. The reconnaissance phase of the Restudy was initiated in June 1993 and the Reconnaissance Report was completed in November 1994. The feasibility phase, which was cost-shared between the USACE and the District, was initiated in August 1995. In February 1996, the Restudy team began considering an array of ideas, components, and options that could be included in a comprehensive plan. Plan formulation is an iterative process, which enables identification of alternative plans to achieve a set of planning objectives and allows those plans to be modified as more information becomes available. Each iteration provides an opportunity to refine and sharpen the planning focus. The reconnaissance phase of the Restudy and the District's Lower East Coast Regional Water Supply Planning process provided the foundation of a manageable set of ideas that deserved further evaluation during the ensuing feasibility study, which would culminate in the selection of the Comprehensive Plan for the C&SF Project.

The Governor's Commission for a Sustainable South Florida (www.everglades.state.fl.us/) undertook the development of preferred alternatives for the Restudy, which culminated in adoption of a Conceptual Plan for the Restudy in August 1996. This Conceptual Plan contained 13 Thematic Concepts that were used during the Restudy as an organizing framework for developing and evaluating alternative components and generating the comprehensive plan that was recommended to the U.S. Congress in July 1999. These concepts include:

- Regional Storage Within the Everglades Headwaters and Adjacent Areas
- Lake Okeechobee Operational Plan
- Everglades Agricultural Area Storage
- Water Preserve Areas
- Natural Areas Continuity
- Water Supply and Flood Protection for Urban and Agricultural Areas
- Adequate Water Quality for Ecosystem Functioning
- Spatial Extent and Quality of Other Wetlands
- Invasive Plant Control
- Aquifer Storage and Recovery
- Protection and Restoration of Coastal, Estuarine, and Marine Ecosystems
- Conservation of Soil
- Operation and Management of the C&SF Project and Related Lands

As Restudy planning goals and objectives were developed through public participation and scientific evaluations, it became evident that the C&SF Project must continue to provide valuable water supply and flood protection services to developed areas as originally intended. Moreover, the economic and social goals objectives stated in the Restudy were similar to those of the original C&SF Project, including enhancement of ecological values as well as economic values and social well being:

The 1996 WRDA provided congressional direction concerning the Restudy, specifically, the completion of a Comprehensive Plan and submission of the Feasibility Report and Programmatic Environmental Impact Statement to the U.S. Congress. The 1996 WRDA also established 50/50 cost sharing for C&SF Project modifications, including water quality features essential for restoration, and authorized construction of critical restoration projects.

The Feasibility Study developed a Comprehensive Plan for the overall C&SF system, and the tools necessary to evaluate the comprehensive plan, as well as separable and incremental portions of the project. The comprehensive plan included such features necessary to provide for

the water-related needs of the region including flood control, enhancement of water supplies, and other objectives served by the C&SF Project. Additionally, this study included findings from other efforts including the Indian River Lagoon (IRL) Feasibility Study and the Water Preserve Areas (WPAs) Feasibility Study. The end-product of this feasibility study was a Feasibility Report with an integrated Programmatic Environmental Impact Statement that served as the basis for obtaining congressional authorization of the comprehensive plan. Additional information of these feasibility studies is available on the CERP web site at www.evergladesplan.org/pm/studies/studies.cfm.

The Comprehensive Plan for the C&SF Project consists of structural and operational changes to the C&SF Project. Individual project features are termed components. Components were developed by sub-regions and optimized at the sub-regional level, and then grouped with other components to form alternative Comprehensive Plans. These plans were then evaluated and trade-offs were determined using system-wide objectives. This evaluation provided the Restudy critical data to determine what refinements to the plan were needed.

CERP will store much of the water that is now discharged to the ocean so there will be enough water for the ecosystem and urban and agricultural users in the future. The plan includes a number of features to improve the quality of water flowing to the natural environment. CERP will continue to provide the same level of flood protection for South Florida. Three additional feasibility studies – Florida Bay and the Florida Keys, Southwest Florida and a Comprehensive Integrated Water Quality Plan – will add information and details to enhance the restoration of the South Florida ecosystem. CERP is a comprehensive solution for ecosystem restoration, water supply and protection from flood damages, and it is a vital step to a sustainable South Florida.

In December 2003, the District reached the midpoint in acquiring lands for CERP. During FY2004, the groundbreaking ceremony was held for the Southern Golden Gate Estates Hydrologic Restoration Project, the first project of the CERP partnership. Ahead of schedule, the project's two miles of filled canals already were reducing freshwater drainage, elevating groundwater levels, and replenishing the wetland habitat. In September 2004, ahead of congressional authorization, the FDEP gave approval for Florida to move forward with construction of the remainder of the project, which was renamed the Picayune Strand Hydrologic Restoration to reflect the goal of merging the land back with the state forest. Construction was also completed on the Western C-11 Water Quality Improvement Critical Restoration Project, and the S-381 structure was turned over from the USACE to the District during 2005.

In October 2004, the governor of Florida and the District unveiled the Acceler8 initiative, which strengthened Florida's commitment to the Everglades by accelerating the environmental restoration effort. The Memorandum of Agreement regarding acceleration of the CERP reaffirms the commitment of the federal, state, and local partnership to revitalize the ecosystem by stepping up the pace on eight restoration projects. The administration in Washington, D.C. endorsed the Acceler8 initiative, as it will foster joint efforts to restore the Everglades; federal agencies will be able to help the state achieve dramatic results on a faster pace; and resources will be freed up to enable completion other CERP projects and the Modified Water Deliveries Project.

Restoring America's Everglades is reviving habitat for more than 60 threatened and endangered species, establishing a reliable supply of water for more than eight million Floridians, and providing flood control consistent with the restoration – a benefit underscored by the impact of four hurricanes during 2004 in South Florida.

OVERVIEW OF THE CERP PROCESS

The overarching purpose of CERP is to restore, protect, and preserve the South Florida ecosystem, while providing for other water-related needs of the region. Four interrelated factors essential to the restoration effort are the quantity, quality, timing, and distribution of water. To restore the timing and distribution of water, the available quantity of water first must be increased. Also, to prevent further damage to the system and to allow restoration, the quality of the water must be improved where necessary prior to its distribution.

Implementation of CERP includes 68 major components grouped into more than 50 projects representing hundreds of features. Many of the projects are interrelated and perform optimally only when other projects are implemented. Prior to implementing projects that store water and improve water quality, several tasks must be accomplished: (1) determining the feasibility of using new technologies, (2) defining the optimum timing and distribution of water, (3) developing supporting programs, (4) acquiring the land necessary for the projects, and (5) producing detailed project designs. Furthermore, a process must be in place to monitor CERP's progress and success, and to modify the plan where adjustments and improvements are necessary.

The Restudy recommended the use of several technologies to accomplish the alterations necessary to restore South Florida's ecosystem. Pilot projects will be conducted to determine the feasibility of using each of these technologies. Some of the technologies being proposed, such as Aquifer Storage and Recovery (ASR) and seepage control, while currently in use in Florida, have never been implemented on the scale envisioned in CERP.

The optimum timing and distribution of water within the natural Everglades ecosystem must be refined. By reviewing historical data, a picture has been developed regarding how the natural system behaved prior to human intervention; however, detailed information is lacking for many areas. In some cases, it is neither practical nor possible to restore the system to its historical condition. Also, existing animal and plant populations have adapted in some degree to the altered ecosystem, and must be monitored closely to ensure that the restoration effort does not cause long-term negative impacts to the populations.

New programs and processes are being developed to support the restoration effort. Support is needed to control the budget, manage data, conduct land surveys, collect supporting data, communicate with the public, ensure environmental equity, enhance recreation, monitor progress, and update the plan when necessary. To date, Program Management Plans (www.evergladesplan.org/pm/mgmtplns.cfm) are in place for:

- Environmental and Economic Equity
- Geodetic Vertical Control Surveys
- Information and Data Management Interagency Modeling Center (IMC)
- Program Controls
- Public Outreach
- Restoration Coordination and Verification (RECOVER; also, see Chapter 7B of this volume)

Given the scale and complexity of CERP, the effects of its implementation on ecosystem restoration may not be apparent for many years. A number of projects must be implemented before the hydrologic improvements necessary for ecosystem restoration can begin. The timing and distribution of water by the C&SF Project can be altered only after water storage capacity has been increased, along with any necessary water quality improvements. As each of the

components to improve the timing and distribution of water are completed, it is expected that the ecosystem will begin to recover.

DESIGN AGREEMENT

Design Agreements have been executed between the USACE and three local sponsors: the South Florida Water Management District, Palm Beach County, and Lee County. The first Design Agreement between the USACE and the District for the design of elements of CERP and the South Florida Ecosystem Restoration Project was executed on May 12, 2000. This agreement covers activities related to planning, engineering and design of CERP implementation. The Design Agreement establishes the method to calculate the 50/50 cost sharing between the District and the USACE for all projects for which District is the local sponsor. This agreement requires the development of a Master Program Management Plan (MPMP), and the establishment of a Design Coordination Team (DCT). A Project Management Plan (PMP) also will be developed for each project covered by the agreement. Further information on the Design Agreements is available on the CERP web site at www.evergladesplan.org/pm/progr_part_design_agree.cfm.

The USACE and Palm Beach County executed the second design agreement covering all aspects of engineering and design for the Winsberg Farm Wetland Restoration Project on January 3, 2002. The USACE and Lee County executed the third Design Agreement covering all aspects of engineering and design for the Lakes Park Restoration Project on January 17, 2003. Design Agreements for other projects are pending with the FDEP, Miami-Dade County, and the Miccosukee Tribe of Indians of Florida.

Unless otherwise noted, this CERP Annual Report refers to the Design Agreement between the District and the USACE. The Design Agreement establishes the method to calculate the 50/50 cost sharing between the District and the USACE for all projects for which the District is the local sponsor.

MASTER PROGRAM MANAGEMENT PLAN

Pursuant to the Design Agreement, the Master Program Management Plan (MPMP) was developed to describe the framework and process to be used by the USACE and the District for managing and monitoring CERP implementation (see www.evergladesplan.org/pm/mpmp.cfm). This document provides the USACE and the District with a common understanding of the business processes and protocols to be applied, and includes descriptions and cost estimates for design work, performance schedules with deadlines, a schedule for planning and implementing program-level and project activities, and a budget. The initial MPMP was completed in August 2000. It specified completion of program management plans for several program-level activities. These efforts involve or affect a number of projects or the entire restoration program. Nine major efforts now comprise the program-level activities for CERP. The status of these activities is discussed in Part (C), Implementation Status, of this chapter.

The Recreation and Interagency Modeling Center program-level activities were not included in the original MPMP, but are being added in an update that began in FY2003. This update will delete a number of appendices that have been incorporated into various CERP Guidance Memoranda (www.evergladesplan.org/pm/cerp-guidance-memo.cfm). Project names and descriptions will be modified for consistency in the update. Revised descriptions of some program-level activities, specifically RECOVER and Environmental and Economic Equity, will

also be included in the update. Update requirements will be revised to indicate annual revisions for both Volumes I and II of the MPMP.

PROJECT-LEVEL ACTIVITIES

Project-level activities conducted under the Design Agreement include planning, engineering, design, and project management efforts specific to individual projects. A Project Management Plan (PMP) is developed, which provides a detailed description of each project's scope, activities, tasks, schedule, cost estimates, and agency responsibilities. To date, Project Management Plans (www.evergladesplan.org/pm/mgmtplns.cfm) have been developed for:

- Acme Basin B Discharge
- Aquifer Storage & Recovery Regional Study
- Biscayne Bay Coastal Wetlands
- Broward Water Preserve Areas
- C-111 Spreader Canal
- Caloosahatchee River (C-43) Basin Aquifer Storage & Recovery Pilot
- C-43 Basin Storage Reservoir – Part 1
- Comprehensive Integrated Water Quality Feasibility Study
- Everglades Agricultural Area Storage Reservoirs – Phase 1
- Florida Keys Tidal Restoration
- Florida Bay and Florida Keys Feasibility Study
- Hillsboro Aquifer Storage & Recovery Pilot
- Indian River Lagoon – North
- Indian River Lagoon – South
- L-31N Seepage Management Pilot
- Lake Belt In-Ground Reservoir Technology Pilot
- Lake Okeechobee Aquifer Storage & Recovery Pilot
- Lake Okeechobee Watershed
- North Palm Beach County – Part 1
- Site 1 Impoundment
- Southwest Florida Feasibility Study
- Southern Golden Gate Estates (Picayune Strand) Hydrologic Restoration
- Strazzulla Wetlands
- Water Conservation Area 3 (WCA-3) Decompartmentalization and Sheetflow Enhancement – Part 1
- Wastewater Reuse Technology Pilot

Once a PMP has been approved, a Project Implementation Report is developed to conduct additional project formulation and evaluation, and to provide more detailed engineering and design. During this process, structural and non-structural alternatives are evaluated for economic, environmental and engineering effectiveness. Criteria for site suitability are established, and a siting analysis is conducted. The completed PIR then serves as the authorization document for the project. When necessary, a Design Documentation Report (DDR) is produced to provide the technical basis for a project's plans and specifications, and to serve as a summary of engineering and design decisions made during project development and implementation. The DDR covers the time from preconstruction engineering through project completion. Plans and specifications are then prepared for construction of the project.

The status of CERP project implementation is discussed later in this chapter. Pilot projects, feasibility studies, critical restoration projects, and other CERP efforts also are addressed.

REGIONAL PROJECT DELIVERY TEAMS

Regional Project Delivery Teams (PDTs) ensure an open forum for interagency involvement and stakeholder participation in reviewing restoration progress (see www.evergladesplan.org/pm/regional_pdts.cfm). This approach, which moved the District and the USACE from individual project teams to two regional teams, was implemented in June 2004 to provide consistency among CERP projects and improve policy guidance and technical support for individual restoration efforts. Furthermore, the regional PDTs focus expertise and resources, increase senior leader participation, and reduce duplicate efforts. The regional PDT projects are summarized below (**Table 7A-1)**.

Table 7A-1. Regional Project Delivery Team (PDT) project list (see www.evergladesplan.org/pm/region_central.cfm).

Central Region PDT Projects	Local Sponsor
Lake Okeechobee Watershed	District
Lake Okeechobee Aquifer Storage & Recovery	District
Indian River Lagoon – South	District
Everglades Agricultural Area Storage Reservoirs - Phase 1	District
Everglades Agricultural Area Storage Reservoirs - Phase 2	District
Loxahatchee National Wildlife Refuge Internal Canal Structures	District
Modify Holey Land Wildlife Management Area Operation Plan	District
Modify Rotenberger Wildlife Management Area Operation Plan	District
North Palm Beach County – Part 1	District
North Palm Beach County – Part 2	District
Palm Beach County Agriculture Reserve Reservoir - Part 1	District
Palm Beach County Agriculture Reserve ASR - Part 2	District
Hillsboro Aquifer Storage & Recovery - Part 2	District
Lake Okeechobee Aquifer Storage & Recovery Pilot	District
Central Region PDT Projects (continued)	**Local Sponsor**
Caloosahatchee River (C-43) Basin Aquifer Storage & Recovery Pilot	District
Hillsboro Aquifer Storage & Recovery Pilot	District
Strazzulla Wetlands	District
Aquifer Storage & Recovery Regional Study	District
Winsberg Farm Wetland Restoration	Palm Beach County
Melaleuca Eradication And Other Exotic Plants	District
C-43 Basin Aquifer Storage and Recovery Part 2	District
South Regional PDT Projects	**Local Sponsor**
C-43 Basin Storage Reservoir - Part 1	District
Caloosahatchee Backpumping with Stormwater Treatment	District
Big Cypress / L-28 Interceptor Modifications	District
Flow to Northwest & Central Water Conservation Area 3A	District
Water Conservation Area 3 Decomp & Sheet Flow Enhancement - Part 1	District
Water Conservation Area 3 Decomp & Sheet Flow Enhancement - Part 2	District
Broward County Secondary Canal System	District
North Lake Belt Storage Area	District
Central Lake Belt Storage Area	District
Everglades National Park Seepage Management	District

Biscayne Bay Coastal Wetlands	District
C-111 Spreader Canal	District
Southern Golden Gate Estates (Picayune Strand) Hydrologic Restoration	District
Florida Keys Tidal Restoration	District
Lake Belt In-Ground Reservoir Technology Pilot	District
L-31N Seepage Management Pilot	District
Wastewater Reuse Technology Pilot	District
Site 1 Impoundment	District
Broward County Water Preserve Areas	District
Bird Drive Recharge Area	District
Miccosukee Water Management Plan	Miccosukee Tribe
Restoration Of Pineland & Tropical Hardwood Hammocks In C-111 Basin	Miami-Dade County
Henderson Creek/Belle Meade Restoration	FDEP
Lakes Park Restoration	Lee County
South Miami-Dade Reuse	Miami-Dade County
C-4 Structure	District
Flow To Eastern Water Conservation Area	District
Water Conservation Area - 2B Flows To Everglades National Park)	District
Water Conservation Area - 3A / 3B Flows To Central Lake Belt	District
Water Preserve Area Conveyance	District
West Miami-Dade Reuse	Miami-Dade County

Participation in regional PDT meetings is all-inclusive, providing the forum and opportunity for Native American tribes and other federal, state, and local agencies to participate in the development, review, discussion, and resolution of issues. The meetings also provide stakeholders and the public with an opportunity to review progress and decisions made on all CERP projects within either the central or the southern region, and to provide input to the process through public comment.

DESIGN COORDINATION TEAM

The Design Coordination Team (DCT) is comprised of members of the District, FDEP, and USACE (see www.evergladesplan.org/pm/dct.cfm). The DCT includes staff from various disciplines, including project management and program controls; planning, engineering, and design and construction management; real estate; research and monitoring; operations and maintenance; environmental compliance; regulation and permitting; and others. This team meets monthly to provide consistent and effective communication, coordination, and issues resolution on projects included in the Design Agreement. It ensures agreement on the design work, as well as on the scheduling and costs for the work.

The DCT provides technical and managerial oversight on issues related to design, including design plans, schedules, and budgets; work products; construction plans and specifications; updates of the MPMP; real property and relocation requirements; contract scopes of work, modifications and costs; cost projections; anticipated requirements for the operation and maintenance of projects; RECOVER efforts; and development of program-level procurement strategies.

The DCT reviews design cost estimates and actual expenditures to ensure that design work is proceeding cost effectively and within budget. This panel will identify and attempt to resolve

technical issues that may impact major milestones or budgets, or have a system-wide restoration impact. The team also reviews budgets and schedules for each project and conducts a formal review of each project on a semiannual basis. Project managers provide a monthly overview of the technical and funding status of their projects, as well as a summary of any technical, schedule or budget issues, and the actions being taken for resolution.

CERP 470 REPORT

The Florida legislature enacted, and on May 10, 2005, the governor of Florida approved Chapter 2005-36, Laws of Florida, an act relating to water management district planning and reporting, which amended Section 373.036, F.S. This act took effect July 1, 2005, and amended Section 15, Subsection (7) of Section 373.470, F.S., as follows:

> 373.470 Everglades restoration.—
>
> (7) ANNUAL REPORT.—To provide enhanced oversight of and accountability for the financial commitments established under this section and the progress made in the implementation of the comprehensive plan, the following information must be prepared annually as part of the consolidated annual report required by s. 373.036(7):
> (a) The district, in cooperation with the department, shall provide the following information as it relates to implementation of the comprehensive plan:
> 1. An identification of funds, by source and amount, received by the state and by each local sponsor during the fiscal year.
> 2. An itemization of expenditures, by source and amount, made by the state and by each local sponsor during the fiscal year.
> 3. A description of the purpose for which the funds were expended.
> 4. The unencumbered balance of funds remaining in trust funds or other accounts designated for implementation of the comprehensive plan.
> 5. A schedule of anticipated expenditures for the next fiscal year.
> (b) The department shall prepare a detailed report on all funds expended by the state and credited toward the state's share of funding for implementation of the comprehensive plan. The report shall include:
> 1. A description of all expenditures, by source and amount, from the Conservation and Recreation Lands Trust Fund, the Land Acquisition Trust Fund, the Preservation 2000 Trust Fund, the Florida Forever Trust Fund, the Save Our Everglades Trust Fund, and other named funds or accounts for the acquisition or construction of project components or other features or facilities that benefit the comprehensive plan.
> 2. A description of the purposes for which the funds were expended.
> 3. The unencumbered fiscal-year-end balance that remains in each trust fund or account identified in subparagraph 1.
> (c) The district, in cooperation with the department, shall provide a detailed report on progress made in the implementation of the comprehensive plan, including the status of all project components initiated after the effective date of this act or the date of the last report prepared under this subsection, whichever is later. The information required in paragraphs (a), (b), and (c) shall be provided as part of the consolidated annual report required by s. 373.036(7) annually in a single report to the Governor, the President of the Senate, and the Speaker of the House of Representatives, and copies of the report must be made available to the public. The initial report is due by November 30, 2000, and each annual report thereafter is due by March 1.

To summarize, Section 373.470(7), F.S., requires the District and the FDEP to submit a CERP Annual Report to "provide enhanced oversight of and accountability for the financial commitments established under this section (Everglades Restoration) and the progress made in the implementation of the comprehensive plan." The statute also requires that this report be made available to the public, and this mandate is fulfilled by producing the CERP Annual Report (also known as the CERP 470 Report) and including it in the *South Florida Environmental Report*.

The CERP Annual Report is divided into three parts, based on the portion of the statute that each fulfills:

- In Part (A), the District and FDEP jointly identify funding sources and amounts, itemize FY2005 expenditures and fund balances, and provides a schedule of anticipated expenditures for FY2006.
- In Part (B), the FDEP provides a detailed report on all funds appropriated and expended by the state on current projects related to CERP. Final credit toward the non-federal share of funding will be determined in each Project Cooperative Agreement.
- In Part (C), the District and FDEP provide a detailed report on progress made in the implementation of CERP, including the status of all projects initiated after the effective date of the Everglades Restoration Investment Act (Section 373.470, F.S.).

For FY2005, this report has been consolidated with other annual reports in the *2006 South Florida Environmental Report – Volume I*, pursuant to Chapter No. 2004-53, Laws of Florida, which was passed by the Florida legislature in 2005.

PART (A) FUNDS – SFWMD AND FDEP

BACKGROUND

Pursuant to Section 373.470(7)(a), F.S., Part (A) of the CERP Annual Report contains information on revenues, expenditures, fund balance, and anticipated expenditures related to CERP implementation. FY2005 information is presented as follows: revenues (**Table 7A-2**), expenditures (**Table 7A-3**), unemcumbered balance of funds remaining in trust funds or other accounts (**Table 7A-4**), and anticipated expenditures for the next fiscal year (**Table 7A-5**).

Only revenues, expenditures, and unencumbered balances dedicated to CERP are included in this chapter. The financial information contained in this annual report is taken from unaudited FY2005 records. Audited FY2005 information is scheduled to be available during the second quarter of FY2006. Any changes to the financial information presented here will be reflected in the District's Comprehensive Annual Financial Report, as well as in future CERP annual reports. No federal revenues or expenditures are shown in these schedules.

The District is funding its share of CERP with revenues from several sources. *Ad valorem* taxes and state appropriations comprise the largest portion of these revenues. Other sources include, but are not limited to, investment earnings on available cash balances, contributions from local governments, mitigation revenues, Florida Forever Program funds, and Preservation 2000 Trust funds and grants.

BASIS OF PRESENTATION

Accounting principles, policies, and practices of both the District and the FDEP conform to generally accepted accounting principles for state and local governments, and are structured in accordance with the Government Accounting Standards Board requirements. These principles require the use of fund accounting. A fund is a separate fiscal and accounting entity having a self-balancing set of accounts. Fund accounting is designed to segregate transactions related to certain functions or activities to ensure resources are applied to finance the activities and objectives for which the resources are received, and to show compliance with legal and contractual obligations.

Table 7A-2. CERP revenues for FY2005. [To be provided in final report.]

Source	SFWMD	FDEP	Other Local Sponsors	Total
Save Our Everglades Trust Fund Investment Earnings				
Save Our Everglades Trust Fund – Total				
Ad Valorem				
Investment Earnings				
Florida Forever Trust Fund				
Florida P2000 Trust Fund				
Water Management Lands Trust Fund				
Other Income				
Transfers In				
Earmarked for Future Reimbursement from the State's Save Our Everglades Trust Fund[5]				
TOTAL REVENUES				

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Table 7A-3. CERP expenditures for FY2005. [To be provided in final report.]

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Projects	SFWMD	FDEP	Total
Local Sponsor – South Florida Water Management District[2, 3]			
Pilot Projects			
Lake Okeechobee ASR Pilot			
Caloosahatchee (C-43) River ASR Pilot			
Hillsboro ASR Pilot			
ASR Regional Study			
Lake Belt In-Ground Reservoir Technology Pilot			
L-31N Seepage Management Pilot			
Wastewater Reuse Technology Pilot			
Kissimmee River and Lake Okeechobee Region			
Lake Okeechobee Watershed			
Lake Istokpoga Regulation Schedule			
Lake Okeechobee Aquifer Storage and Recovery			
Caloosahatchee River Region			
C-43 Basin Storage Reservoir – Part 1			
C-43 Basin Aquifer Storage and Recovery (ASR) – Part 2			
Caloosahatchee Backpumping with Stormwater Treatment			
Upper East Coast Region			
Indian River Lagoon – South			
Everglades Agricultural Area			
Everglades Agricultural Area (EAA) Storage Reservoirs - Phase 1			
EAA Storage Reservoirs – Phase 2			
Big Cypress Region			
Big Cypress/L-28 Interceptor Modifications			
Water Conservation Areas (WCAs) and Everglades Region			
Flow to NW & Central WCA-3A			
WCA-3 Decomp and Sheetflow Enhancement – Part 1			
WCA-3 Decomp and Sheetflow Enhancement – Part 2			
Loxahatchee National Wildlife Refuge Internal Canal Structures			
Modify Holey Land Wildlife Management Area Operation Plan			
Modify Rotenberger Wildlife Management Area Operation Plan			
Melaleuca Eradication and Other Exotic Plants			
Lower East Coast Region			
North Palm Beach County – Part 1			
North Palm Beach County – Part 2			
ACME Basin B Discharge			
Strazzula Wetlands			
Site 1 Impoundment			
Broward County WPA			
C-4 Structure			
Bird Drive Recharge Area			
PBC Agriculture Reserve Reservoir – Part 1			

651 **Table 7A-3.** Continued. [To be provided in final report.]

Projects	SFWMD	FDEP	Total
Local Sponsor – South Florida Water Management District[2, 3]			
Lower East Coast Region			
PBC Agriculture Reserve Aquifer Storage & Recovery – Part 2			
Hillsboro Aquifer Storage & Recovery – Part 2			
Diverting WCA Flows to CLB to Downstream Natural Areas			
Broward County Secondary Canal System			
North Lake Belt Storage Area			
Central Lake Belt Storage Area			
Everglades National Park (ENP) Seepage Management			
Biscayne Bay Coastal Wetlands			
C-111 Spreader Canal			
Southwestern Florida Region			
Southern Golden Gate Estates Hydrologic Restoration			
Florida Bay and Florida Keys Region			
Florida Keys Tidal Restoration			
Critical Restoration Projects			
Ten Mile Creek			
Western Tamiami Trail Culverts			
Western C-4 Water Control Structure			
Southern Crew/Imperial River Flowways			
Lake Trafford Restoration			
Lake Okeechobee Water Retention/Phosphorus Removal			
Western C-11 Water Quality Improvement			
Critical Restoration Program Controls			
Reconnaissance, Feasibility, and Planning Studies			
Southwest Florida Feasibility Study			
Florida Bay and Florida Keys Feasibility Study			
Indian River Lagoon Feasibility Study			
Water Preserve Areas Feasibility Study			
Monitoring and Evaluation			
RECOVER			
Adaptive Assessment and Monitoring			
Program Management & Support			
Program Management			
Program Support			
Program Controls			
Public Involvement and Outreach			
Socioeconomic and Environmental Justice			
Data Management			
Interagency Modeling Center			
Master Recreation Plan			
Programmatic Regulations			
CERP Precursors			
C-111 Project Implementation			

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Table 7A-3. Continued. [To be provided in final report.]

653

Projects	SFWMD	FDEP	Total
Other Local Sponsors[4]			
Comprehensive Integrated Water Quality Feasibility Study (FDEP)			
Biscayne Bay Feasibility Study (Miami-Dade County DERM)			
Seminole Tribe Big Cypress Reservation Water Conservation Plan (Seminole Tribe)			
Henderson Creek/Belle Meade Restoration (FDEP)			
Lakes Park Restoration (Lee County)			
Winsburg Farms Wetlands Restoration (Palm Beach County)			
Miccosukee Water Management Plan (Miccosukee Tribe County)			
Restoration of Pineland and Hardwood Hammocks in C-111 Basin (Miami-Dade County)			
West Miami-Dade Reuse (Miami-Dade County)			
South Miami-Dade Reuse (Miami-Dade County)			
TOTALS			

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Table 7A-4. CERP unencumbered balance fund for FY2005.
[To be provided in final report.]

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Projects	SFWMD	FDEP	Other Local Sponsors	Total
Fund Balance as of September 30, 2003				
Add: Revenues[3]				
Less: Expenditures[4]				
Adjustments[5]				
Transfers Out				
Kissimmee River Restoration Land				
Fund Balance as of September 30, 2004				
Less: Encumbrances[7]				
Unencumbered Balance as of September 30, 2004				

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659 **Table 7A-5.** CERP anticipated expenditures for FY2006.
660 [To be provided in final report.]

Projects	Total Anticipated Expenditures
Local Sponsor – South Florida Water Management District	
Pilot Projects	
Lake Okeechobee ASR Pilot	
Caloosahatchee (C-43) River ASR Pilot	
Hillsboro ASR Pilot	
ASR Regional Study	
Lake Belt In-Ground Reservoir Technology Pilot	
L-31N Seepage Management Pilot	
Wastewater Reuse Technology Pilot	
Kissimmee River and Lake Okeechobee Region	
Lake Okeechobee Watershed	
Lake Istokpoga Regulation Schedule	
Lake Okeechobee Aquifer Storage and Recovery	
Caloosahatchee River Region	
C-43 Basin Storage Reservoir – Part 1	
C-43 Basin ASR – Part 2	
Caloosahatchee Backpumping with Stormwater Treatment	
Upper East Coast Region	
Indian River Lagoon – South	
Everglades Agricultural Area	
EAA Storage Reservoirs – Phase 1	
EAA Storage Reservoirs – Phase 2	
Big Cypress Region	
Big Cypress/L-28 Interceptor Modifications	
Water Conservation Areas and Everglades Region	
Flow to NW & Central WCA-3A	
WCA-3 Decomp and Sheetflow Enhancement – Part 1	
WCA-3 Decomp and Sheetflow Enhancement – Part 2	
Loxahatchee National Wildlife Refuge Internal Canal Structures	
Modify Holey Land Wildlife Management Area Operation Plan	
Modify RWMA Operation Plan	
Melaleuca Eradication and Other Exotic Plants	
Lower East Coast Region	
North Palm Beach County – Part 1	
North Palm Beach County – Part 2	
ACME Basin B Discharge	
Strazzula Wetlands	
Site 1 Impoundment	
Broward County WPA	
C-4 Structure	
Bird Drive Recharge Area	
PBC Agriculture Reserve Reservoir – Part 1	
PBC Agriculture Reserve Aquifer Storage & Recovery – Part 2	
Hillsboro ASR – Part 2	
Diverting WCA Flows to CLB to Downstream Natural Areas	
Broward County Secondary Canal System	
North Lake Belt Storage Area	
~~Central Lake Belt Storage Area~~	

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Table 7A-5. Continued.
[To be provided in final report.]

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Projects	Total Anticipated Expenditures
Local Sponsor – South Florida Water Management District	
Lower East Coast Region	
ENP Seepage Management	
Biscayne Bay Coastal Wetlands	
C-111 Spreader Canal	
Southwestern Florida Region	
Southern Golden Gate Estates Hydrologic Restoration	
Florida Bay and Florida Keys Region	
Florida Keys Tidal Restoration	
Critical Restoration Projects	
Ten Mile Creek	
Western Tamiami Trail Culverts	
Western C-4 Water Control Structure	
Southern Crew/Imperial River Flowways	
Lake Trafford Restoration	
Lake Okeechobee Water Retention/Phosphorus Removal	
Western C-11 Water Quality Improvement	
Critical Restoration Project Implementation Support	
Reconnaissance, Feasibility, and Planning Studies	
Southwest Florida Feasibility Study	
Florida Bay and Florida Keys Feasibility Study	
IRL Feasibility Study	
Water Preserve Areas Feasibility Study	
Monitoring and Evaluation	
RECOVER	
Adaptive Assessment and Monitoring	
Land Aquisition	
Land Acquisition and Associated Costs[3]	
Program Management and Support	
Program Management	
Geodetic Vertical Control Surveys	
Program Controls	
Public Involvement and Outreach	
Environmental and Economic Equity	
Data Management	
Master Recreation Plan	
Interagency Modeling Center	
Programmatic Regulations	
Project Implementation Support	
CERP Indirect Costs[4]	
CERP Precursors	
C-111 Project Implementation	
CERP Reserves	
Reserves[5]	

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Table 7A-5. Continued.
[To be provided in final report.]

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Projects	Total Anticipated Expenditures
Other Local Sponsors	
Comprehensive Integrated Water Quality Feasibility Study (FDEP)	
Biscayne Bay Feasibility Study (Miami-Dade DERM)	
Seminole Tribe Big Cypress Reservation Water Conservation Plan (Seminole Tribe)	
Henderson Creek/Belle Meade Restoration (FDEP)	
Lakes Park Restoration (Lee County)	
Winsburg Farms Wetlands Restoration (Palm Beach County)	
Miccosukee Water Management Plan (Miccosukee Tribe)	
Restoration of Pineland and Hardwood Hammocks in C-111 Basin (Miami-Dade County)	
West Miami-Dade Reuse (Miaimi-Dade County)	
South Miami-Dade Reuse (Miami-Dade County)	
TOTALS	

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PART (B) FUNDS - FDEP

BACKGROUND

Pursuant to Section 373.470(7)(b), F.S., Part (B) of the CERP Annual Report contains a detailed account of all funds expended by the state toward land acquisition for CERP in FY2005 (see **Table 7A-6**). The unencumbered fiscal-year-end balance that remains in each identified trust fund is also reported. Only revenues, expenditures, and unencumbered balances dedicated to CERP are included within this document.

Every CERP project will be described in a PIR, and a Project Cooperation Agreement subsequently will be executed. The amount of expenditures to be credited toward the state's share of funding for implementation of CERP will be developed during the detailed design phase and affirmed in the Project Cooperation Agreements.

BASIS OF PRESENTATION

The FDEP's accounting policies conform to generally accepted accounting principles for state and local governmental units and are structured in accordance with the Governmental Accounting Standards Board requirements. These principles require the use of fund accounting. A fund is a separate fiscal and accounting entity having a self-balancing set of accounts. Fund accounting is designed to segregate transactions related to certain functions or activities to ensure resources are applied to finance the activities and objectives for which the resources are received and to demonstrate compliance with legal and contractual obligations.

The information in these special-purpose financial presentations relates to the general fund and to special revenue funds classified as a governmental fund type. Special revenue funds are used to account for specific revenue sources which are legally restricted to expenditure for specified purposes.

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Table 7A-6. Revenues, expenditures, and encumbrances by the state for all CERP projects for FY2005. [To be provided in final report.]

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	Save Our Everglades Trust Fund	Florida Preservation 2000 Trust Fund	Florida Forever Trust Fund	Total
REVENUES – By Source of Funds				
Florida Preservation 2000 Trust Fund				
Florida Forever Trust Fund				
Interest Earnings (Net)				
TOTAL REVENUES				
EXPENDITURES – By Project				
Bird Drive Recharge Area				
Broward County WPA				
PBC Agriculture Reserve Reservoir				
North Lake Belt Storage Area				
Central Lake Belt Storage Area				
Biscayne Bay Coastal Wetlands				
Indian River Lagoon – South				
North Palm Beach County – Part 1				
Southern Golden Gate Estates Restoration				
TOTAL EXPENDITURES				
ENCUMBRANCES				
TOTAL ENCUMBRANCES				
Excess (Deficiency) of Revenues Over Expenditures and Encumbrances				
Unencumbered Balance as of September 30, 2003				
Fund Balance Reserved for Encumbrances as of September 30, 2003				
Unencumbered Balance as of September 30, 2004				

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PART (C) - IMPLEMENTATION STATUS

CERP implementation will restore, protect, and preserve the greater Everglades ecosystem. This national resource is unlike any other ecosystem in the world. Immediate actions are necessary to maintain and restore this extraordinary ecosystem. CERP affords this opportunity to preserve an Everglades legacy for generations to come. CERP's focus has been on recovering critical ecological features of the original Everglades and other parts of the ecosystem. CERP will restore natural flows of water, water quality, and hydroperiods. The removal of more than 240 miles of internal levees and canals will improve the health of more than 2.4 million acres of the South Florida ecosystem, including the Everglades and Biscayne National Park. The restoration of hydrologic conditions of the original natural areas of the South Florida ecosystem will benefit the Lake Okeechobee environment as well as the greater Everglades ecosystem. Major benefits will be provided to the Caloosahatchee and St. Lucie estuaries and Lake Worth Lagoon. CERP also will improve freshwater deliveries to Florida Bay and Biscayne Bay. Improvements to native flora and fauna, including threatened and endangered species, are expected to occur as a result of the restoration of the hydrologic conditions.

Water storage is the predominant feature of CERP, as it captures most of the average 1.7 billion gallons of water per day discharged to the ocean. This water will be stored in more than 217,000 acres of new reservoirs and wetlands-based treatment areas, and about 300 underground Aquifer Storage and Recovery (ASR) wells. These features vastly increase the amount of water storage available in South Florida. CERP will ensure a reliable, adequate supply of fresh water for all use. Approximately 80 percent of the new water captured by the plan will go to the environment and 20 percent will be used to enhance urban and agricultural supplies.

Florida is a low-lying, flat, wet state, which is prone to flooding. Today, the C&SF Project provides flood protection on a regional basis for South Florida, supported by many locally operated canal networks. CERP will maintain, and potentially improve, this important flood protection element of the C&SF Project.

Implementation of CERP will result in wide-ranging economic benefits, not only for Florida, but the entire nation. Recreation, tourism, agriculture, and commercial fishing industries are key components of the Florida economy, and restoration of the South Florida ecosystem will help to make these industries stronger and more sustainable. These industries contribute significantly to the national economy. Visitors from around the country, as well as from around the world, travel to the Everglades, Florida Bay, and the many other natural areas of South Florida. Fish and seafood harvested from South Florida's coastal waters are shipped to markets across the country and the world.

Without intervention, the region will experience continued degradation, characterized as frequent water shortages, of the Everglades, coastal estuaries, fisheries, and other natural resources; and more frequent flooding. Implementation of CERP will result in the recovery of healthy, sustainable ecosystems in South Florida. It is a plan that will lead to a strong economy and an improved environment for people and the plants and animals that depend on the natural system for their survival.

CERP contains components essential to achieving this goal. No other plan, especially one on a smaller scale or one lacking appropriate balance between ecosystem restoration and future urban and agricultural water supply objectives, would achieve similar success.

The ultimate success of CERP will be a reflection of its implementation over the coming years. Simply stated, the hard work lies ahead in terms of restoring this important ecosystem. Successful implementation will require a well-coordinated strategy that, like CERP itself, recognizes that first and foremost, ecosystem restoration is the overarching objective. This objective is the principal driving force behind the sequence and pace at which specific project features are undertaken. Implementation is being guided by a set of principles:

- Expedite ecosystem restoration benefits
- Use a flexible approach to implementation
- Integrate CERP features with ongoing projects
- Maintain ecosystem focus
- Ensure responsible use of fiscal resources
- Provide assurances to beneficiaries
- Design for water quality improvement
- Continue the interagency, interdisciplinary approach
- Continue to involve stakeholders and the public
- Develop contingency plans as appropriate

In a relatively short time, this plan already is beginning to reverse the pattern of ecological degradation that has been occurring in the natural system for many decades. As implementation moves forward, the natural wetlands of South Florida are expected to be healthier by the year 2010.

Section 373.470(7)(c), F.S., or Part (C), requires that the status of CERP implementation be reported annually along with the financial information. One of the efficiencies of including the CERP Annual Report in the *2006 South Florida Environmental Report* is that the Consolidated Project Report Database (Appendix X-X of the 2006 SFER – Volume II) contains complete project information, including the status of implementation of CERP projects. Accordingly, this section of the CERP Annual Report contains only brief project information and highlights of acccomplishments during the past fiscal year.

STATUS OF LAND ACQUISITION

The District, as the non-federal sponsor of CERP, is responsible for acquiring the real estate needed for the construction, monitoring, and operation of CERP projects. The CERP projects are estimated, in October 1999 dollars, to cost $7.8 billion, of which $2.2 billion is allocated to the acquisition of lands. The District's land acquisition strategy for water resource management prioritizes the purchase of lands based on authorized project construction schedules, the availability of willing sellers, identification of lands threatened by development potential, and recognition of lands in areas of rapidly escalating property values. This strategy promotes timely and cost-effective acquisition of lands for Everglades restoration. Lands acquired for CERP will be used to provide enhanced water quality, quantity, timing, and distribution for the natural system. In December 2003, the District reached the midpoint in acquiring lands for CERP.

Properties acquired by the District for future CERP projects are managed until such time as the land is needed for construction. These lands will ultimately be used as STAs, surface water reservoirs, groundwater recharge areas, and/or buffer lands between the Everglades and other sensitive areas and urban development. These lands are not specifically acquired or designated for environmental enhancement, restoration, or preservation purposes and, generally, they are not proposed for recreational or other public uses except on a limited basis that is consistent with their future use.

Where appropriate, historical uses of properties (e.g., grazing, sod, vegetable and sugar cane farming, and nurseries and tree farms) are allowed to continue through the use of reservations, leases, or similar agreements. Generally, a competitive bid process is used to solicit proposals and award contracts, which include cancellation clauses so the land can be quickly made available when it is needed. In some cases, short-term leases are negotiated as part of the acquisition package. Lessees typically are required to actively manage the property, control exotics, provide security for the property, implement applicable best management practices, keep the property and facilities in good repair and condition, obtain all required permits and approvals for their activities, maintain required insurance coverage, and pay applicable taxes.

District real estate expenditures during FY2005 totaled $X million in the purchase of X acres for CERP projects. The acres acquired during this time increased the total lands which will be available for use by CERP projects to X acres, representing X percent of the estimated land needed for CERP projects. Chapter 6 of the 2006 SFER – Volume II contains more detailed information on land acquisition and management.

[Note that FY2005 acquisitions are not provided in this draft document; however, this information will be available for the final report.]

STATUS OF PROGRAM-LEVEL ACTIVITIES

Given the number of projects included in CERP, as well as the many related projects that affect the system-wide restoration effort, intense and innovative management, communication, and coordination are required throughout the implementation of the plan. These major efforts comprise the program-level activities for implementation of CERP:

- Adaptive Assessment and Monitoring
- Environmental and Economic Equity
- Geodetic Vertical Control Surveys
- Information and Data Management
- Master Recreation Plan
- Program Controls
- Programmatic Regulations
- Public Outreach
- RECOVER
- System-wide Modeling (Interagency Modeling Center)

The initial MPMP specified completion of program management plans for Program Controls, Public Outreach, Environmental and Economic Equity, Geodetic Vertical Control Surveys, and RECOVER. Initial PMPs were completed for all these program-level activities, and for Data Management and Recreation. Additional information regarding program-level activities and their respective status is available in the Consolidated Project Report Database (Appendix X-X of the 2006 SFER – Volume II) and on the CERP web site at www.evergladesplan.org/pm/landing_pp.cfm. Brief summaries are provided below.

Adaptive Assessment and Monitoring. Adaptive Assessment provides and organized process for confronting and reducing uncertainties that exist about how the natural and human systems in South Florida will respond to a long-term restoration program. A system-wide monitoring plan is laid out in the Monitoring and Assessment Plan. The MAP is the primary tool by which RECOVER will assess the performance of CERP. Part 1 of the MAP, which described the monitoring components and supporting research was completed in 2004. A detailed

assessment process for interpreting the information collected by the implementation of this plan is under development, and will be documented in Part 2 of the MAP, which will be completed in FY2006. The Adaptive Management Strategy and Annual System-wide Assessment also will be completed in FY2006.

Environmental and Economic Equity. As CERP is implemented, South Florida citizens' concerns, needs, and economics are considered and integrated into the project-specific and restoration-related processes and decisions. The Environmental and Economic Equity (EEE) Program Management Plan deals with social, cultural, behavioral, historical, and economic subjects involved with CERP. The plan's purpose is to maximize the potential benefits, both system-wide, and project-specific, resulting from CERP activities, and to minimize any adverse social or economic impacts that may arise. In FY2006, the Urban Corridor Analysis and Economic Justice Maps will be completed, and the EEE Program Management Plan will be revised.

Geodetic Vertical Control Surveys. The purpose of the Geodetic Vertical Control Survey Project is to provide a common vertical elevation framework for scientific data analysis, modeling, design, construction, and operations and maintenance. All spatial data collections for CERP are based on this survey, and all project elements with an elevation component are referenced to the new monuments, which were set during this project to ensure systems connectivity. The project was completed under budget and ahead of schedule in November 2003.

Information and Data Management. The purpose of CERP Information and Data Management is to provide coordinated management and integration of all CERP information based on a program-level strategy, as noted in the MPMP. As CERP's information requirements evolve, so does the District's strategy to meet these needs and provide workable solutions to support program-wide goals. The CERP Data Management Program's oversight includes the CERPZone, Electronic Document Management, and WEB. The CERP Data Management Plan, which was previously revised, is being updated to include these new information technology areas. CERPZone procurements proceeded during FY2005, which included contract support, maintenance contracts, and lifecycle replacements. Revision of the Information and Data Program Management Plan is scheduled to be completed in FY2006, and the District's project management system will be moved from the CERPZone into the District's environment.

Master Recreation Plan. The Master Recreation Plan will take a system-wide approach to identify, evaluate, and address the effects of CERP implementation on existing recreational use within the South Florida ecosystem, and will identify and evaluate potential new recreation, public use and educational opportunities. The Program Management Plan was finalized in October 2004.

Program Controls. The Program Controls Management Plan directs the joint implementation of a program controls function that will be able to confirm that CERP is being managed in a manner consistent with what has been agreed upon by the District and USACE. The program controls function will also be able to respond to the reporting and information needs of the wide variety of stakeholders interested and involved in the program. Project scheduling, costing, and document management activities proceeded during FY2005.

Programmatic Regulations. The CERP Programmatic Regulations, which were issued during FY2004 pursuant to the 2000 WRDA, Section 601(h), require the development of six program-wide guidance memoranda and a pre-CERP baseline. The guidance memoranda and pre-CERP baseline are fundamental to the integrated framework; provide direction for using the tools for planning, implementation, and evaluation; and provide assurances that the goals and

purposes of the plan will be achieved. As part of the consultation process required by the programmatic regulations, these draft documents containing the six guidance memoranda and the pre-CERP baseline were made available for review by agencies and the public. The USACE and the District consulted with the South Florida Ecosystem Restoration Task Force, completed the guidance memoranda and pre-CERP baseline, and in April 2005 submitted them to the Secretary of the Army in accordance with the programmatic regulations. Also in FY2005, the Master Implementation Sequencing Plan Consultation was completed in the second quarter. In the fourth quarter, it is anticipated that an agreement will be executed for Interim Goals and that the Interim Targets Notice of Availability will be published in the Federal Register.

Public Outreach. Public Outreach enables interested and affected individuals, organizations, agencies, and other governmental entities to be informed of a project and its goals, and to have the opportunity to participate in the decision-making process. Outreach efforts include the CERP Report, a monthly electronic newsletter that highlights the community outreach initiatives of CERP, and issuance of a seasonal Community Outreach in Action newsletter, targeting minority communities. In addition, community events are sponsored or attended by SFWMD and USACE outreach staff. During FY2005 a media initiative was developed to inform the public and stakeholders of restoration activities, and Everglades video news clips were produced and aired weekly on various evening news stations to highlight restoration benefits. Awareness was raised and business partnerships forged in a symposium in June 2005 to support Acceler8 construction initiatives. Plans for FY2006 include implementing community partnerships for CERP and Acceler8 and completing the first year of a job training and workforce development program, which was launched during FY2005.

RECOVER. The role of RECOVER is to organize and apply scientific and technical information in ways that are most effective in supporting CERP objectives. RECOVER links science and its tools to a set of system-wide planning, evaluation, and assessment tasks. In September 2004, RECOVER updated its Quality Assurance Systems Requirements manual, which lays out the protocols and procedures for environmental data-gathering activities, the foundation of the CERP quality assurance and quality control program. During FY2005, the Decompartmentalization Adaptive Management Strategy was developed, and RECOVER worked with the project team to include this strategy in the Project Management Plan. Work proceeded on the Initial CERP Update, which is expected to be completed in September 2005. This will be followed by initiation of the ASR Contingency Plan. The Performance Measure Documentation Report and the Conceptual ASR Contingency Plan are both scheduled to be completed during FY2006. The Sea Level Rise Sensitivity Analysis and Sensitivity Analysis of System-wide Performance Measures also is expected to be completed in FY2006. Additional information on RECOVER is presented in Chapter 7B of this volume.

System-wide Modeling (Interagency Modeling Center). System-wide model results will be used by RECOVER teams to evaluate the system-wide performance of particular CERP projects, and Project Development Teams (PDTs_ will be able to review system-wide model results of plan alternatives. The South Florida Water Management Model (SFWMM) simulates the hydrology and management of the South Florida water resources system from Lake Okeechobee to Florida Bay. The Everglades Landscape Model (ELM) predicts landscape response and water quality changes as a result of water management scenarios. The Lake Okeechobee Water Quality Model (LOWQM), which became available in June 2003, simulates the eutrophication process in water column and underlying sediments in Lake Okeechobee to produce estimates of total phosphorus. During FY2005, work continued as planned on the Regional Simulation Model (RSM). In FY2006, the SFWMM documentation peer review is scheduled to be completed. Also,

SFWMM Runs for the ASR Contingency Plan and for Sea Level Rise Sensitivity analysis is also expected to be completed.

STATUS OF PROJECT-LEVEL ACTIVITIES

Through the 2000 WRDA, the U.S. Congress authorized an initial $1.4 billion package of projects to begin CERP implementation. The initial authorization included four pilot projects, 10 specific project features, and a programmatic authority through which smaller projects can be more quickly implemented.

Prior to full-scale implementation, six pilot projects, costing about $97 million, were planned to address uncertainties with some of CERP's features. These projects include (1) ASR in each geographic region that the technology is proposed, (2) in-ground reservoir technology in the lake belt region of Miami-Dade County, (3) levee seepage management technology adjacent to Everglades National Park (ENP or Park), and (4) advanced wastewater treatment technology to determine the feasibility of using reuse water for ecological restoration.

The 10 projects and the adaptive assessment program, totaling $1.1 billion, recommended in the initial authorization were selected because they could provide system-wide water quality and flow distribution benefits to the ecosystem, as well as opportunities to integrate these features with other ongoing federal and state restoration programs.

The District and the USACE are fully engaged in detailed planning, design, and implementation of CERP projects in accordance with the Master Implementation Sequencing Plan. The MISP defines the order in which projects will be planned, designed, and constructed. It also incorporates effects of state and federal legislation and other factors on the CERP projects, and reduces technical uncertainties and clarifies relationships between external milestones and specific CERP projects. The previous schedule was published in July 2001; revisions commenced during 2003, following the promulgation of Programmatic Regulations, as required by the 2000 WRDA. The MISP was completed in April 2005.

Presentation of information in the MISP is in bands, which groups items by implementation completion date, facilitates the understanding of the overall implementation strategy by presenting the information in the sequence it will be worked on by the implementing agencies. Bands are management tools that provide clear priorities and allow focusing of resource and agency expertise. Band 1 construction completion dates range from 2005–2010. The Band 1 projects and components, along with their MISP construction completion date, are shown in **Table 7A-7**.

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Table 7A-7. MISP Band 1 construction completion dates.

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Project or Component Name	Date
Caloosahatchee (C-43) River ASR Pilot	2006
Hillsboro ASR Pilot Project	2006
Melaleuca Eradication and Other Exotic Plants (PIR)	2007
Winsberg Farm Wetlands Restoration	2008
L-31 N Seepage Management Pilot	2008
Lake Okeechobee ASR Pilot	2007
Biscayne Bay Coastal Wetlands (Phase 1)	2008
Picayune Strand Hydrologic Restoration	2009
Indian River Lagoon – South	
- C-44 Reservoir	2009
- Natural Areas Real Estate Acquisition (Phase 1)	2009
Broward County Water Preserve Area	
- C-9 Impoundment	2009
- C-11 Impoundment	2009
- WCA-3A/3B Levee Seepage Management	2008
Acme Basin B	2007
Site 1 Impoundment	2009
North Palm Beach County – Part 1	
- C-51 and L-8 Basin Reservoir, Phase 1 (Palm Beach Aggregates)	2008
EAA Storage Reservoir	
- Part 1, Phase 1	2009
Lake Okeechobee Watershed	
- Lake Istokpoga Regulation Schedule	2008
Modify Rotenberger Wildlife Management Area Operation Plan	2009
Lakes Park Restoration	2009
C-43 Basin Storage Reservoir	2010

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This section highlights the individual projects and milestones, such as development of PMPs and PIRs, which have been initiated or completed. For purposes of this section, the projects have been grouped as Acceler8 projects, pilot projects, feasibility studies, critical projects, and other CERP projects.

Improved water quality and increased storage are critical to Everglades restoration. During FY2004, years ahead of schedule, the District began moving forward with three reservoir projects to complete a major part of CERP. In a shift from "business as usual," in which work would wait until the studies were completed, the District started designing these projects while the USACE continued with planning and environmental studies. In the early FY2005, the state of Florida and the District unveiled the Acceler8 initiative, which will include the advance work projects and others in a major boost for Everglades restoration. The District and the USACE are also continuing performing detailed planning and preliminary design of pilot projects, feasibility studies, and other capital or construction projects. In addition, the agencies have continued implementing critical restoration projects that commenced prior to CERP authorization.

Acceler8

Launched on October 14, 2004, Acceler8 is an expedited course of action for achieving Everglades restoration benefits ahead of schedule and under budget. This initiative is a major boost for Everglades restoration, which reaffirms the commitment of the federal, state, and local partnership to revitalize the ecosystem by stepping up the pace on eight restoration projects. These projects, some with multiple components will provide immediate environmental, flood control and water supply benefits when completed. They will serve as the foundation for other comprehensive restoration efforts to follow, and include the following:

- C-44 (St. Lucie Canal) Reservoir/Stormwater Treatment Area
- C-43 (Caloosahatchee River) West Reservoir
- Everglades Agricultural Area Reservoir – Phase 1 with Bolles and Cross Canals Improvements
- Water Preserve Areas (includes Site 1, C-9, C-11, Acme Basin B, WCA-3A/3B)
- Picayune Strand (Southern Golden Gate Estates) Restoration
- Biscayne Bay Coastal Wetlands - Phase 1
- C-111 Spreader Canal

By accelerating the funding, design, and construction of these projects, the Everglades will experience positive benefits much sooner, and in a more cost-effective manner. As opposed to the "pay as you go" approach, taxpayer dollars needed for construction will be significantly leveraged. The District will finance project construction with Certificates of Participation (COPs) revenue bonding. Florida Statutes define COPs as a type of revenue bond that a water management district may issue "to finance the undertaking of any capital or other project for the purposes permitted by the State Constitution." COPs are statutorily authorized tax-exempt certificates showing participation through ownership of a share of lease payments for a capital facility of a government agency. Financing and fast-tracking these projects will avoid expected increases in construction materials and labor costs. To date, most of the land for these projects has been acquired, with much of it purchased in partnership with the federal government.

Building these projects on an accelerated pace is a major economic undertaking that is expected to generate a large demand for goods and services. Special efforts are being made to ensure that a wide variety of vendors and contractors will be utilized, and partnerships are under way with local workforce development organizations to help prepare and train area workers with needed job skills.

During FY2005, the District executed an agreement to establish a Construction Institute in Belle Glade for the Lake Region workforce training. A curriculum has been developed and classes are scheduled to begin in the fall 2005. Federal grant monies may be forthcoming to supplement the institute's funding. A similar workforce training program is being developed for Hendry and Collier counties, and outreach services are being organized for small business and small contractor involvement.

A contractor pre-qualification process is in place to develop a matrix of qualified contractors by the fourth quarter. Contractors will pre-qualify for nine different construction classes across six bonding ranges in order to provide Acceler8 with a pool of qualified contractors ready to work and an assessment of those construction classes where there are insufficient qualified contractors. The construction classes are pump station construction, fill-embankment construction, water reservoir embankment construction, earthwork, roadway construction, controlled blasting operations, soil bentonite cut-off wall construction, and flow control structure construction.

As of the third quarter, the District has executed $14.7 million in Acceler8 work orders; surveying is under way for nine projects and geotechnical is under way for six projects; the Basis of Design Phase has been completed for Biscayne Bay Coastal Wetlands, C-111 Spreader Canal, and Site 1 Reservoir; the Draft Basis of Design Report (BODR) has been completed for Picayune Strand Pump Station; and a well-attended Acceler8 Construction Symposium and Exhibition has been presented. Upcoming activities scheduled for the remaining portion of the third quarter are as follows: completing the Draft BODR for the Everglades Agricultural Area (EAA) Reservoir; completing the Geotechnical Final Review for Acme Basin B; completing the Geotechnical Reports for Site 1 and C-111 Spreader Canal; and completing surveying for the C-9 and C-11 Impoundments and C-111 Spreader Canal.

The following efforts are anticipated during the fourth quarter: initiating Design for Picayune Strand pump stations; completing C-43 test cell construction documents; and completing BODRs for Site 1, Acme Basin B, and the EAA Reservoir.

STATUS OF ACCELER8 PROJECTS

An overview of the Acceler8 projects and their status during FY2005 is provided below.

C-43 West Storage Reservoir. The C-43 (Caloosahatchee River) West Reservoir project is a component of a larger restoration project for the Caloosahatchee River and Estuary, and will comprise a significant portion of the overall water storage requirement for the C-43 basin. This project consists of an above-ground reservoir located along the Caloosahatchee River. The maximum storage capacity is 160,000 acre-feet (ac-ft). Depending on storage needs, water depth will vary from 12–16 feet. The reservoir will be constructed on an 11,000-acre parcel owned by the District in Hendry County, west of LaBelle. The pre-final BODR was completed in January 2005; stakeholder and technical review of the BODR was completed in March 2005. The target completion date for the PIR and the target start date for construction is in FY2007.

C-44 Reservoir/Stormwater Treatment Area. The C-44 (St. Lucie Canal) Reservoir/STA project is a component of the larger Indian River Lagoon – South Project, and consists of a 4,000-acre, 10-foot-deep above-ground reservoir that will provide additional water storage for the C-44 basin. The project also includes a 4,000-acre STA to capture and treat excess stormwater runoff before it enters the St. Lucie Canal and, ultimately, the SLE and IRL. To date, the PIR has been completed. The Notice to Proceed for the Basis of Design Report was issued in December 2004; the BODR is currently on schedule to be completed in the first quarter of FY2006.

Everglades Agricultural Area Reservoir – Phase 1 with Bolles and Cross Canals Improvements. The EAA Reservoir project is a component of the larger EAA Reservoir project and is designed to provide significant additional water storage in the southern region of the Everglades Agricultural Area. The Phase 1 project is an above-ground reservoir for water storage, with a capacity of 190,000 ac-ft at a maximum depth of 12 feet. The reservoir will be constructed on a 16,700-acre parcel of land situated north of STA-3/4 and between the Miami and North New River canals. This project also includes conveyance capacity increases for the Bolles and Cross canals in order to provide improved flood protection and water flow capabilities for moving water to and from the EAA Reservoir and STAs. The Notice to Proceed for the BODR was issued in April 2005, with completion scheduled in August 2005. The Preliminary Engineering Notice to Proceed will be issued in August 2005. Construction is currently on schedule to begin in the first quarter of FY2007.

Everglades Agricultural Area Stormwater Treatment Areas Expansion. The EAA STAs expansion will enlarge the size and enhance the performance of existing Stormwater Treatment Areas created as part of the Everglades Construction Project (ECP). These constructed wetlands naturally reduce stormwater runoff pollution levels flowing from the EAA before entering the Everglades. This project will expand STA-2 by an additional 2,000 acres; and expand STA-5 by an additional 2,560 acres. Feasibility studies will determine optimal configuration of treatment works in the remaining land in both expansion areas.

Water Preserve Areas. The WPAs consist of a series of five project components located adjacent to the Everglades Water Conservation Areas (WCAs) in Palm Beach, Broward, and Miami-Dade counties. This project includes the construction of above-ground impoundments, a wetland buffer strip, pump stations, culverts, canals, water control structures, and seepage control systems. The five components that comprise the WPAs are (1) Site 1 Impoundment, (2) C-9 Impoundment, (3) C-11 Impoundment, (4) Acme Basin B Discharge, and (5) WCA-3A/3B Seepage Management. The WPA objectives include retaining water in the natural system,

improving hydroperiods and water quality, providing a buffer between natural and developed areas, preserving and protecting wetlands outside the Everglades, and flood protection.

Site 1 Impoundment. The Site 1 features include an impoundment of 1,660 acres, eight feet deep, a seepage management system, 1,500 cubic feet per second (cfs) pump station, three gated culvert structures, improvements to the Hillsboro Canal, L-40 levee improvements, and recreational features. The Draft PIR was published in the Federal Register in February 2005. Public and agency review of the PIR concluded in April 2005. The Basis of Design Report Notice to Proceed was issued in June 2005. The District's Governing Board Agenda in September 2005 includes a request for authorization of a Letter of Support for the PIR. The BODR is scheduled to be completed in December 2005, after which the Notice to Proceed for Preliminary Engineering will be issued.

C-9 Impoundment. The C-9 Impoundment will store 6,600 ac-ft of water. Project features include a 1,075 cfs pump station, a gated spillway, gated culverts, C-9 canal conveyance upgrade to 2,500 cfs, a seepage canal with pump station, perimeter levee, windbreaks, and emergency overflow spillway. The Notice to Proceed for Preliminary Engineering was issued during August 2005. Preliminary Engineering is scheduled to be completed in the third quarter of FY2006, and construction is on schedule to begin during the fourth quarter of FY2006.

C-11 Impoundment. The C-11 project features include an impoundment of 1,850 acres, four feet deep, with a 2,575 cfs pump station, a three-bay gated spillway and gated culvert, an ungated culvert, two fixed weir structures, seepage canals, embankments, and windbreaks. The Notice to Proceed for Preliminary Engineering was issued in August 2005. Preliminary Engineering is scheduled to be completed in the third quarter of FY2006, and construction is on schedule to begin during the fourth quarter of FY2006.

Acme Basin B Discharge. The Acme Basin B project includes three components: (1) Section 24 Impoundment, which includes earthwork, levee, seepage canals, a natural area planted with wetland and upland vegetation and recreational components; (2) two 200 cfs Section 24 electric with diesel backup pump stations along with gated culverts; and (2) C-1 Canal Improvements consisting of approximately 4.5 miles of modified section for 220 cfs conveyance capacity. The Acme Basin B Discharge Project Draft Basis of Design Report was completed in July 2005, and the final is planned for August 2005. The Notice to Proceed for Preliminary Engineering will be issued during August 2005. This project is on schedule to start construction in the second quarter of FY2006.

WCA-3A/3B Seepage Management. The WCA-3A and 3B Levee Seepage Management project features ecosystem restoration, seepage reduction in the amount of 156,000 ac-ft per year from WCA-3A/3B, enhancement of wetlands spatial extend, and incidental flood protection. The Notice to Proceed for Preliminary Engineering was issued in August 2005. Preliminary Engineering is scheduled to be completed in the third quarter of FY2006, and construction is on schedule to begin during July 2006.

Picayune Strand (Southern Golden Gate Estates) Restoration. The Picayune Strand project involves the restoration of natural water flow across 85 square miles in western Collier County, drained in the early 1960s with the intention of extensive residential development. This development dramatically altered the natural landscape, changing a healthy wetland ecosystem into a distressed environment. The project includes 83 miles of canal plugs, 227 miles of road removal, and the addition of pump stations and spreader swales to aid in rehydration of wetlands and maintenance of flood protection for the Northern Golden Gate Estates residential area. The Prairie Canal construction package includes plugging seven miles of canal using existing material

adjacent to the canal (the first two miles were completed during 2004); clearing roadways to natural grade; monitoring plants and wildlife; and controlling exotics. Design was initiated in December 2004 and is scheduled to be completed in June 2006. The Final Basis of Design Report for three pump stations was completed in June 2005. Preliminary Engineering for the pump station is scheduled to be completed in the first quarter of FY2006, with construction starting during the fourth quarter of FY2006.

Biscayne Bay Coastal Wetlands – Phase 1. The Biscayne Bay Wetlands project is a component of a larger project that will expand and restore the wetlands adjacent to Biscayne Bay in Miami-Dade County, enhancing the ecological health of Biscayne National Park. This project consists of the design and construction of two essential components: Deering Estates Flow-way and Cutler Ridge Wetlands. The Notice to Proceed for the Basis of Design Report was issued in May 2005, and the BODR is scheduled to be completed in the second quarter of FY2007. Surveying and geotechnical services and the hydraulic/hydrologic modeling are currently in progress. Final plans and specifications are scheduled to be completed during the third quarter of FY2007, with construction starting during the fourth quarter of that year.

C-111 Spreader Canal. The C-111 Spreader Canal project is a multi-purpose project that provides for ecosystem restoration of freshwater wetlands, tidal wetlands, and near-shore habitat; maintenance of flood protection; and recreation opportunities. Located in south Miami-Dade County, project works include pump stations, culverts, spreader canal, water control structures, and an STA. In addition, an existing canal and levee will be degraded to enhance sheetflow across the restored area. The Notice to Proceed for the Basis of Design Report was issued in June 2005; this report is scheduled to be completed during the second quarter of FY2006. Final plans and specifications are scheduled to be completed during the fourth quarter of FY2007, with construction starting during the first quarter of FY2007.

In addition to the environmental improvements, these Acceler8 projects will provide additional flood control and water supply options, along with the potential for recreational opportunities. The District and the USACE will continue their partnership in implementing CERP. Acceler8 projects will continue in a dual-track mode with the USACE and the District continuing in the planning phases for these and all CERP projects, while the District proceeds with the detailed design and construction of the Acceler8 projects. Additional information on these projects can be found on the Acceler8 web site at www.evergladesnow.org.

Pilot Projects

Pilot projects will be conducted to assist in CERP implementation. Four projects are designed to address the technical and regulatory uncertainties regarding regional implementation of ASR projects. Three other projects are designed to test other proposed technologies. PMPs have been completed for all of the projects, and the PDTs have completed or are working on the Pilot Project Design Reports for each pilot project. A map depicting the location of these seven pilot projects is presented in **Figure 7A-1**.

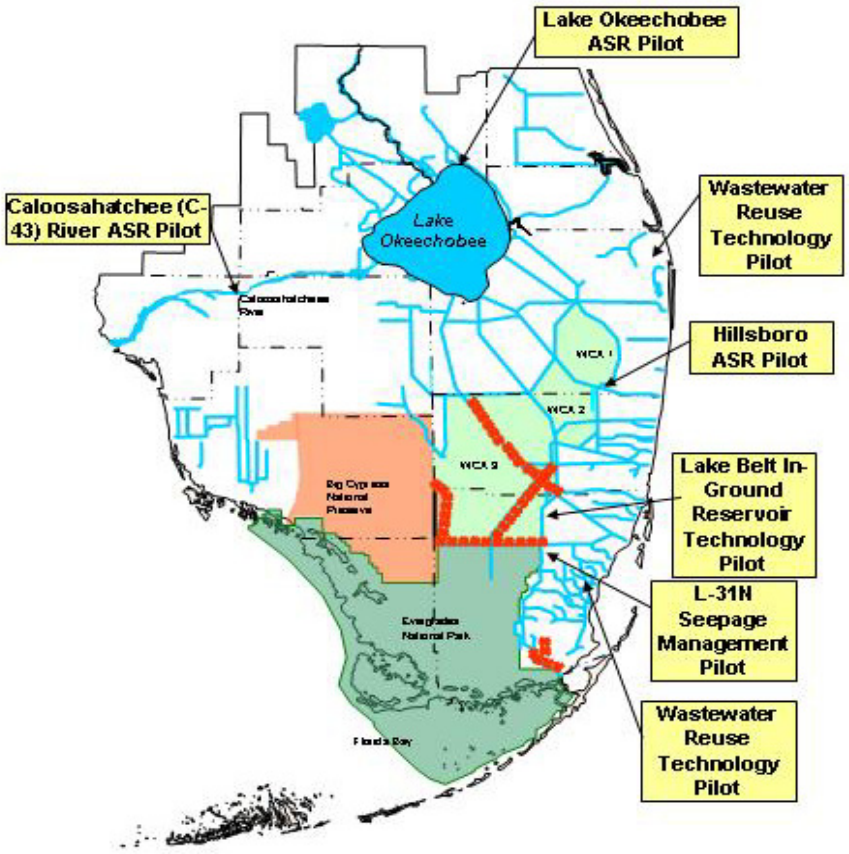

Figure 7A-1. General location of CERP pilot projects.

Restoring any major part of the Everglades will involve some technical exploration. The SFWMD and the USACE are moving forward with the pilot projects for ASR, which is untried on the scale envisioned in CERP. Although these projects are awaiting congressional authorization and appropriations, design and other activities have proceeded, and a contract for surface facilities construction at one of the pilot sites will be awarded by the fourth quarter.

If the wells utilizing this 35-year-old technology work as expected, then they can help replenish urban drinking-water supplies, irrigate farmland, and nourish natural areas while requiring very little land for a very large water return. FY2005 highlights of these and other CERP pilot projects are provided below.

STATUS OF PILOT PROJECTS

Aquifer Storage and Recovery Pilot Projects. Pilot projects were authorized for several CERP components that were to be implemented on a very large scale. These components had sufficient detail for plan selection but were not of sufficient detail for the traditional USACE feasibility studies. ASR technology had been demonstrated and was feasible but had not been tested on the scale that was required for CERP. The ASR pilot projects at Lake Okeechobee, the Caloosahatchee (C-43) River, and the Hillsboro Canal are being implemented to answer these questions of scale. These pilot projects will provide the technical detail for additional plan formulation and development, in the form of a technical data report. From this information, the number and location of proposed wells and any specific treatment requirements will be determined. The major milestones for these ASR pilot projects are provided in **Table 7A-8**.

Lake Okeechobee ASR Pilot. This pilot project is necessary to identify the most suitable sites for the ASR wells in the vicinity of Lake Okeechobee and to identify the optimum configuration of those wells. Additionally, the Lake Okeechobee ASR Pilot project will determine the specific water quality characteristics of waters to be injected, the specific water quality characteristics and amount of water recovered from the aquifer, and the water quality characteristics of the receiving aquifer. Further information from the pilot project will provide the hydrogeological and geotechnical characteristics of the upper Floridan aquifer system (FAS) within the region, and the ability of the upper FAS to maintain injected water for future recovery. This work is currently awaiting the Record of Decision (ROD) for the Environmental Impact Statement (EIS). The Notice to Proceed for the construction contact for the Hillsboro ASR Pilot Project is scheduled to be issued during August. Comprehensive Everglades Restoration Plan Regulatory Act (CERPRA) permits for the Lake Okeechobee sites are pending, and congressional appropriation is needed to facilitate construction of the Lake Okeechobee and Caloosahatchee sites.

Caloosahatchee River (C-43) Basin ASR Pilot. The Caloosahatchee River ASR Pilot project will provide information regarding the characteristics of the aquifer system within the Caloosahatchee River Basin, as well as determine the hydrogeological and geotechnical characteristics of the upper Floridan aquifer. This work is currently awaiting the ROD for the EIS. The Notice to Proceed for the construction contact for the Hillsboro ASR Pilot Project is scheduled to be issued in August 2005. CERPRA permits for the Lake Okeechobee sites are pending, and congressional appropriation is needed to facilitate construction of the Lake Okeechobee and Caloosahatchee sites.

Hillsboro ASR Pilot. The Hillsboro Site 1 above-ground impoundment operates in conjunction with multiple ASR wells in order to maximize the benefits of the impoundment. A pilot project for these wells is necessary to determine the hydrogeological and geotechnical characteristics of the soils and aquifer, the most suitable sites for the ASR wells in the vicinity of the impoundment,

and the optimum configuration of those wells. The Hillsboro ASR Pilot project will also determine the specific water quality characteristics of water within the aquifer, as well as the quality of water proposed for injection and the water quality characteristics of water recovered from the aquifer. This work is currently awaiting the ROD for the EIS. The Notice to Proceed for the construction contact for this pilot project is scheduled to be issued in August 2005. CERPRA permits for the Lake Okeechobee sites are pending, and congressional appropriation is needed to facilitate construction of the Lake Okeechobee and Caloosahatchee sites.

Table 7A-8. Aquifer Storage and Recovery (ASR) major milestones.

Milestones	Lake Okeechobee	Hillsboro	Caloosahatchee
Project Management Plan	March 2001	March 2001	February 2002
Pilot Project Design Report	October 2004	October 2004	October 2004
Project Cooperation Agreement	December 2005	December 2005	December 2005
Construction	March 2006	August 2005	September 2006
Testing	March 2009	March 2009	March 2009
Technical Data Report	September 2009	September 2009	September 2009

ASR Regional Study. Major tasks of the ASR Regional Study include well drilling and testing, tracer tests, subsurface water-rock-microorganisms interaction studies, groundwater-level monitoring, and environmental characterization. Ecological risk assessments, groundwater modeling, engineering and geotechnical studies, geophysical surveys, groundwater quality monitoring, and integration of pilot project results are also included. This work is currently awaiting the ROD for the EIS. The Notice to Proceed for the construction contract for the Hillsboro ASR Pilot Project, the results of which will be incorporated in this study, is scheduled to be issued in August 2005. CERPRA permits for the Lake Okeechobee sites are pending, and congressional appropriation is needed to facilitate construction of the Lake Okeechobee and Caloosahatchee sites.

Big Cypress/L-28 Interceptor Modifications. This project includes modification of levees and canals, water control structures, pumps, and STAs with a total storage capacity of 7,600 ac-ft located within and adjacent to the Miccosukee and Seminole Indian Reservations in Collier and Hendry counties. The purpose of this project is to reestablish sheetflow from the West Feeder Canal across the Big Cypress Reservation and into the Big Cypress National Preserve, maintain flood protection on Seminole Tribal lands, and ensure that inflows to the North and West Feeder Canals meet applicable water quality standards. This project is not currently authorized.

Lake Belt In-Ground Reservoir Technology Pilot. Several projects recommend the use of areas where lime rock mining will have occurred. The initial design of these reservoirs includes subterranean seepage barriers around their perimeter in order to enable drawdown during dry periods, prevent seepage losses, and prevent water quality impacts due to transmissivity of the aquifer in these areas. The Lake Belt In-Ground Reservoir Technology Pilot project is required to determine construction technologies, storage efficiencies, impacts on local hydrology, and water quality effects. Water quality assessments will include a determination as to whether the in-ground reservoirs and seepage barriers will allow for storage of untreated waters without concern for groundwater contamination. This project was on hold during FY2005.

L-31N Seepage Management Pilot. The purpose of the L-31 N Seepage Management Pilot project is to determine the appropriate technology needed to control seepage from the Everglades National Park and provide the appropriate amount of wet season groundwater flow that will minimize potential impacts to the Miami-Dade County's West Wellfield and freshwater flows to Biscayne Bay. In November 2004, a Seepage Management Sub-team was assembled to develop options and alternatives that potentially could address seepage by 2010. In February 2005, six seepage management options were presented, and the team was directed to evaluate a seepage barrier along a portion of the L-30 levee north of U.S. Highway 41. Seepage barrier scale and cost comparisons were presented in May 2005, and the USACE proposed to request headquarter approval to increase the project funding limit and expand the area, while the District reviews alternative funding sources. These changes require a PMP revision; a review and comment period for federal, state, and local agencies; and approval by the USACE's Project Review Board and District's Executive Director. These activities may occur during the current fiscal year, with the resumption of the Pilot Project Design Report preparation in the first quarter of FY2006, pending 2005 WRDA authorization.

Wastewater Reuse Technology Pilot. The Wastewater Reuse Pilot project will address water quality issues associated with discharging reclaimed water into natural areas, such as the West Palm Beach Water Catchment Area, Biscayne National Park, and the Bird Drive Basin, as well as determine the level of superior treatment and the appropriate methodologies for that treatment. The PMP and Technical Report were completed in the first quarter of FY2005. In accordance with the MISP, this project is on hold until 2015.

More detailed information on each of the CERP pilot projects and status reporting can be found on the CERP web site and in the Consolidated Project Report Database (Appendix X-X in the 2006 SFER – Volume II).

Feasibility Studies

The time frame of the Restudy did not permit a thorough investigation of all the regional water resource challenges of South Florida. Accordingly, a handful of new studies were proposed. These studies will be conducted under the authority of the 1996 WRDA, which allows for the continuation of studies and analyses that are necessary to further CERP (see www.evergladesplan.org/pm/studies/studies.cfm).These studies will investigate conceptual designs, and make regional recommendations for meeting the future needs of agricultural, urban, and environmental users CERP includes one reconnaissance study (Additional Water for the ENP and Biscayne Bay) and seven feasibility studies as follows:

- Additional Water for Everglades National Park and Biscayne Bay Reconnaissance Study
- Comprehensive Integrated Water Quality Feasibility Study
- Florida Bay / Florida Keys Feasibility Study
- Indian River Lagoon – North Feasibility Study
- Indian River Lagoon – South Feasibility Study
- Southwest Florida Feasibility Study
- Water Preserve Areas Feasibility Study

Notably, after a decade of study and development, the PIR for the Indian River Lagoon – South Plan, an important CERP project, was completed and submitted to the U.S. Congress in August 2004. The project is included in the U.S. House of Representatives version of the 2005 WRDA.

A map of the Feasibility Study locations is provided as **Figure 7A-2**. An overview of these studies and their status during FY2005 is provided below.

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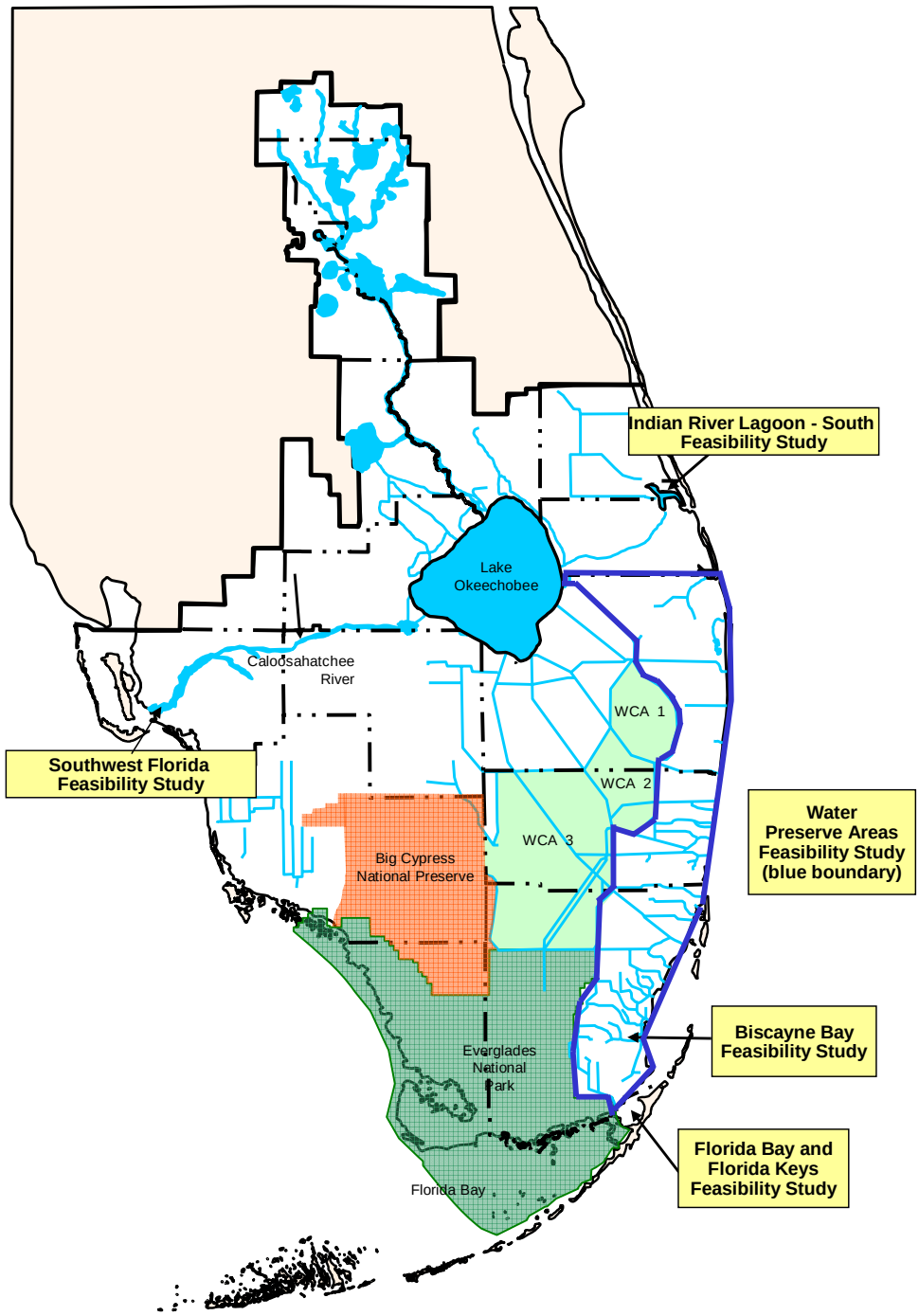

Figure 7A-2. Location map of feasibility studies within the SFWMD.

Additional Water for Everglades National Park and Biscayne Bay Reconnaissance Study. The USACE initiated a reconnaissance study to investigate the need for, quantity needed, timing and distribution, and impacts and benefits associated with providing additional water to Everglades National Park and Biscayne Bay in association with the CERP. The Final Reconnaissance Study Report confirmed that federal participation is warranted to proceed to a feasibility-level study; however, a non-federal sponsor for the feasibility phase must be identified. The report also recommended deferral of the feasibility phase until completion of the technical documentation report to be prepared for the Initial CERP Update. Miami-Dade County Department of Environmental Resource Management (DERM) is the local sponsor for the Biscayne Bay Feasibility Study, which is composed of three phases: Phase I involves numerical Hydrodynamic modeling; Phase II applies the water quality tool; and Phase III provides numerical biological modeling. Key milestones are as follows: the Phase II Feasibility Study was initiated in June 2001; the Request for Proposals for Phase II modeling was issued in August 2004; the Phase II Draft Report and Statement of Work were completed in June 2005; and completion of the Phase II Feasibility Study is currently awaiting funding.

Comprehensive Integrated Water Quality Feasibility Study. The Comprehensive Integrated Water Quality Feasibility Study is a study co-sponsored by the USACE and the FDEP. The study is the result of a recommendation of the Restudy, which recognized the need for a comprehensive water quality plan that would integrate the CERP projects and other federal, state, and local government programs. The PMP was presented for the Project Review Board's approval during FY2004. Negotiation of a Feasibility Study Cost-Sharing Agreement between the USACE and the FDEP is currently pending.

Florida Bay and Florida Keys Feasibility Study. The project authorization for the Restudy also directs the development of a hydrodynamic model for Florida Bay. Other related activities in the Florida Bay and Florida Keys Feasibility Study include the development of data in support of understanding the effect of the C&SF Flood Control Project on historic and current pathways and volumes of freshwater inflows into Florida Bay, the effect of freshwater inflows on salinity, and determining the biological responses to changes in salinity gradients and salinity fluctuations. Hydrodynamic model runs consistent with the CERP Guidance Memoranda continued during FY2005. Integration of the Water Quality Model and completion of Management Scenarios modeling is planned for FY2006. By the end of FY2006, it is anticipated that the Modeling Report and the transfer of technology will be completed.

Indian River Lagoon – North Feasibility Study. Issues under consideration for the Indian River Lagoon – North Study include improving habitat, improving circulation, improving water quality, developing a sediment strategy, better control of runoff, exotic vegetation removal, and increasing recreational opportunities. The St. Johns River Water Management District is the local sponsor for this effort, which will improve habitat, circulation, and water quality; develop a sediment strategy; provide better control of runoff; remove exotic vegetation; and increase recreational opportunities. The PMP was completed in April 2004.

Indian River Lagoon – South Feasibility Study. The Indian River Lagoon – South Feasibility Study investigated the options to alter the detrimental affects of the flow of surface waters through the existing Central and Southern Florida (C&SF) canal system to the SLE and IRL. The C&SF project features in this study area are C-25 (Belcher Canal), C-24 (Diversion Canal), C-23, and C-44 (St. Lucie Canal). This study focused on making improvements, which will restore the environmental health of the receiving water bodies as well as their watershed. The results of this study produced a final PIR in March 2004.

Southwest Florida Feasibility Study. The Southwest Florida Feasibility Study will identify water resource related problems and opportunities and provide a framework to address the health of aquatic ecosystems, water flows, water quality, water supply, flood protection, wildlife, biological diversity, and natural habitat. The PMP was completed in 2002. During FY2004, work continued on development of the regional simulation model and the four sub-basin simulation models. Development of agriculture and urban demand projections and the development of ecological assessment tools also continued. Preparation for the Feasibility Scoping Meeting is under way, four sub-regional hydrologic models are nearing completion, and calibration is presently under review. The regional model is under development and the topographic data layer is complete. The Feasibility Scoping Meeting is scheduled in October 2005. The Final Feasibility Report is expected to be issued during 2008.

Water Preserve Areas Feasibility Study. The WPAs Plan in Palm Beach, Broward and Miami-Dade counties is an essential element of CERP, comprising an interconnected series of marshlands, impoundments, STAs, conveyance, and aquifer recharge areas. The WPAs provide a critical source for new water by reducing undesirable losses from the natural system through seepage and capturing and storing stormwater runoff that was previously discharged to tide. The WPA Feasibility Study provides the basis of information for the PIRs that will be developed for the following projects:

- Strazzulla Wetlands
- Site 1 Impoundment
- C-4 Structure
- Bird Drive Recharge Area
- Broward County WPA (includes C-9 Impoundment/STA, C-11 Impoundment and Diversion Canal, and WCA-3A/3B Levee Seepage Management)
- WCA 2B Flows to the ENP (also includes Phase 1 of Central Lake Belt Component and WCA-3 Flows to the Central Lake Belt)
- WPA Conveyance (includes Dade-Broward Levee Improvements and Phase 1 of North Lake Belt Component)

Each of the projects which resulted from this study is highlighted in the *Other SFWMD CERP Projects* section of this chapter, and is detailed in the Consolidated Project Report Database (Appendix X-X in the 2006 SFER – Volume II) and on the CERP web site.

Critical Restoration Projects

The 1996 WRDA, Section 528, provides for development of specific water quality related projects that are essential to the restoration of the Florida Everglades. These critical restoration projects are designed to provide immediate, independent, and substantial environmental restoration benefits. These relatively small projects were determined to be crucial to the restoration of the South Florida ecosystem, and were authorized prior to CERP. Active critical projects for which the SFWMD is the local sponsor include Lake Okeechobee Water Retention/Phosphorus Removal, Lake Trafford Restoration, Southern CREW/Imperial River Flow-way, Ten Mile Creek, and Western Tamiami Trail Culverts (**Figure 7A-3**). These projects are being implemented along with CERP projects. Brief "letter reports" were prepared for each of these projects, instead of PMPs or PIRs, and are available on the USACE's Jacksonville District web site at www.saj.usace.army.mil/.

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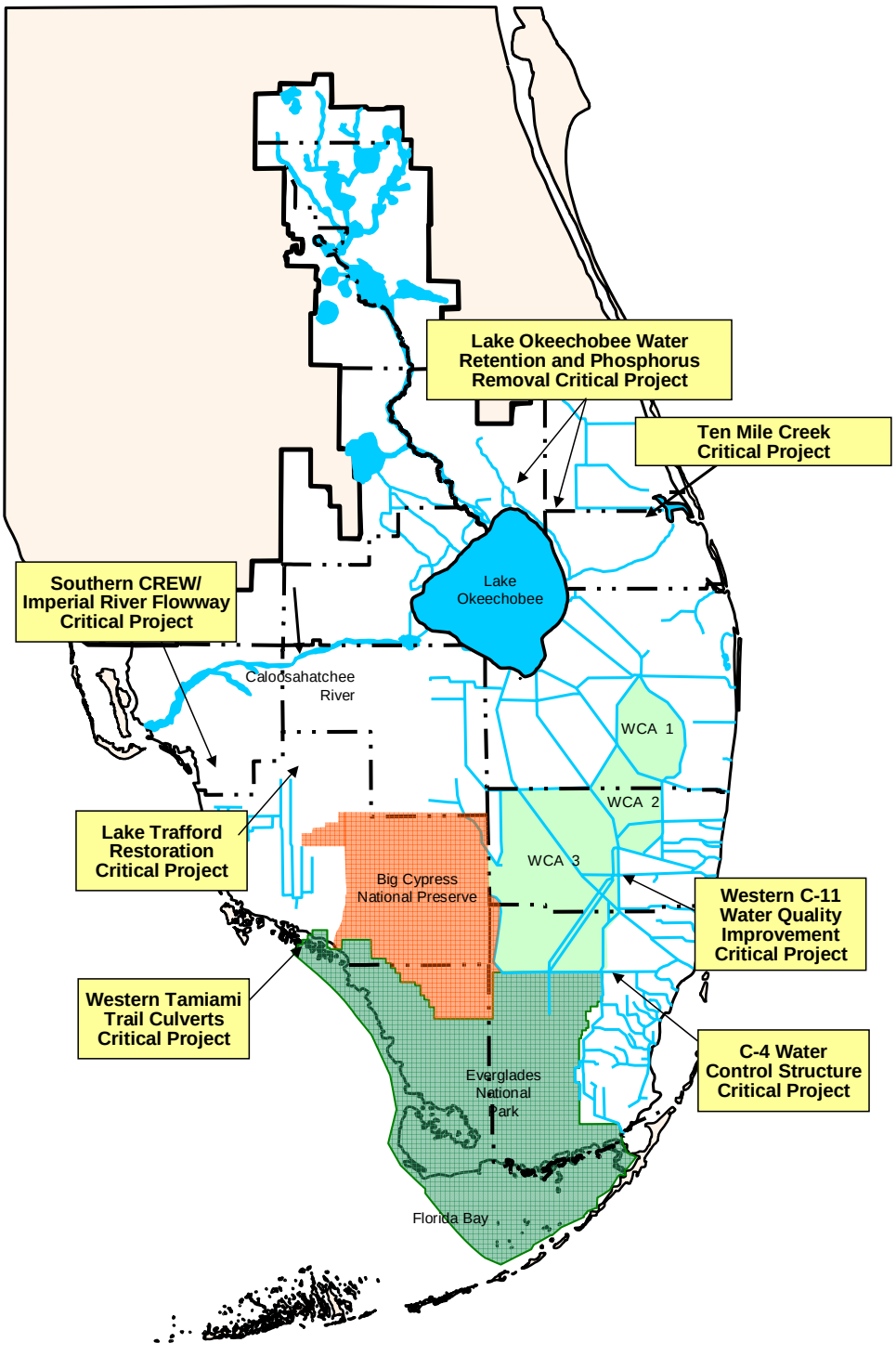

Figure 7A-3. Location map of critical restoration projects.

STATUS OF CURRENT CRITICAL RESTORATION PROJECTS

Ten Mile Creek. The Ten Mile Creek Basin contributes the second largest volume of stormwater of the St. Lucie Estuary's five tributary basins. The Ten Mile Creek project is located at the headwaters of the North Fork of the St. Lucie River Aquatic Preserve. This project was initiated a decade ago to moderate high-water volume freshwater flows and salinity fluctuations in the SLE, to reduce sediment and nutrient loads, and to benefit estuarine habitat. Construction is currently on schedule to be completed in December 2005. Interim testing and monitoring will progress over the following 12–18 months with periodic safety inspections. Capital construction continued on schedule during FY2005, and is expected to be completed in the first quarter of FY2006. Construction of the telemetry tower commenced during FY2005, and installation of telemetry equipment is scheduled to be completed in the second quarter of FY2006, at which time the Interim Operations and Testing Phase will begin.

Western Tamiami Trail Culverts. Work progressed during FY2005 on culvert penetrations, guard rails, and ancillary components along the first five miles beginning at State Road 92 and proceeding eastward. These five miles will be completely repaved by the end of the current fiscal year. Seven culverts are scheduled to be installed during FY2006, and project construction is expected to be completed by the end of the third quarter. Construction for this project, which is currently on time and within budget, is scheduled to be completed in May 2006. The Tamiami Trail Phase I has been incorporated into the Picayune PIR. Once the PIR is authorized by the U.S. Congress, the Tamiami Trial PCA will be voided and the Tamiami Trail Phase I will be fully eligible for cost share under the Picayune Project. At that point, a new PCA will need to be negotiated for the Tamiami Trail Phase II. The USACE is the lead agency for Tamiami Trail Phase II.

Southern CREW/Imperial River Flow-way. This project involves the acquisition of 4,670 acres and their restoration to a natural state to reestablish more natural flow patterns in the Southern Corkscrew Regional Ecosystem Watershed, restore the Imperial River's natural flow way to Estero Bay and reduce river nutrients. Completion of this project is awaiting receipt of grant monies from the Department of the Interior.

Lake Trafford Restoration. The Lake Trafford Restoration project will dredge organic sediment from Lake Trafford to improve lake water quality and subsequent flows to the Corkscrew Swamp Sanctuary and regional ecosystem watershed, and the Florida Panther National Wildlife Refuge. A park dedication and Lake Trafford Restoration celebration was held in May. The current schedule calls for one million cubic yards of muck to be dredged by year end. Dredging is forecast to be 50 percent complete by the second quarter of FY2006.

Lake Okeechobee Water Retention/Phosphorus Removal. The Lake Okeechobee Water Retention / Phosphorus Removal project consists of design and construction of stormwater treatment areas for Taylor Creek and Nubbin Slough to capture and attenuate peak flows from portions of the watershed and to improve water quality. Both STAs are located in Okeechobee County, and are the first to be constructed north of the Lake. The 190-acre STA on Grassy Land Ranch on Taylor Creek will be completed during 2005 and the 780-acre Nubbin Slough STA on the former New Palm/Newcomer Dairy site will be completed in early 2006.

SUMMARY OF COMPLETED CRITICAL RESTORATION PROJECTS

East Coast Canal Structures (C-4). This project involved the construction of a gated water control structure in the C-4 basin to raise surface water and groundwater levels, increase aquifer recharge, and reduce seepage. Construction was completed in May 2003.

Western C-11 Water Quality Improvement. This project involved construction of a spill way structure in the C-11 canal to separate clean seepage flows from stormwater flows and to construct a pump station to pump clean flows into WCA-3A. The purpose of this project was to correct pumping of untreated agricultural and urban stormwater runoff from the western C-11 basin into WCA-3A. Construction of the spillway was completed in February 2005, and the structure was turned over in March 2005 for District operation.

Other SFWMD CERP Projects

Work has commenced on several other CERP projects; the SFWMD is the local sponsor for most of these other projects. The PMPs have been completed for many of these projects, and PIRs have been initiated. Up-to-date information on these newly rescheduled projects can be found on the CERP web site at www.evergladesplan.org. A map of these project locations is provided as **Figure 7A-4**.

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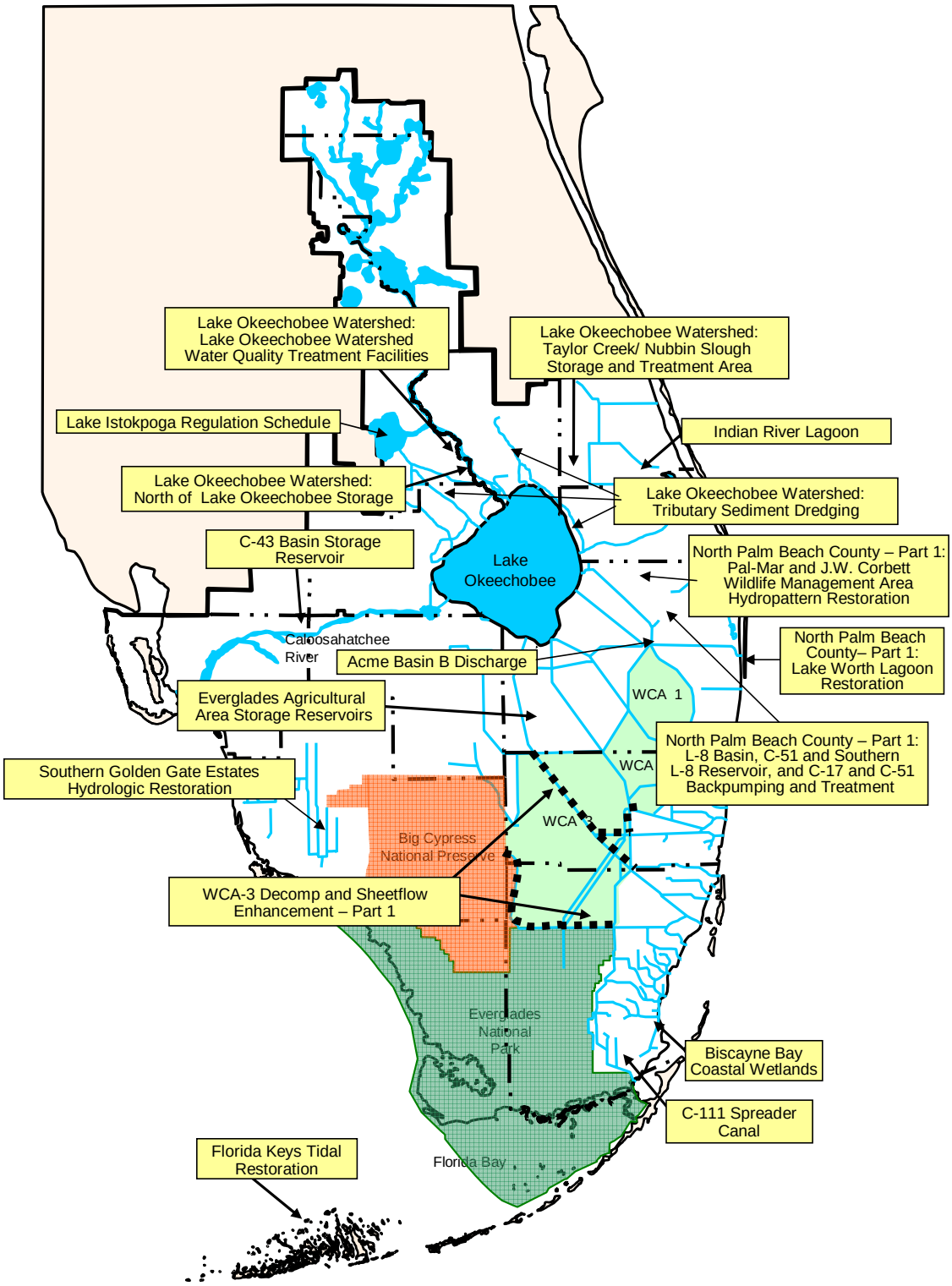

Figure 7A-4. Location map of other CERP projects currently being implemented.

Acme Basin B Discharge. The purpose of the Acme Basin B project is to provide water to the Arthur R. Marshall Loxahatchee National Wildlife Refuge (Refuge) that would otherwise be lost to tide. The District has included this project in the Acceler8 initiative in order to comply with the Everglades Forever Act target date of December 2006. The Alternative Formulation Briefing was held in June 2005. The Draft PIR/National Environmental Protection Act (NEPA) document is expected to be published in the Federal Register in November 2005, and Public Review is scheduled to be completed by the end of 2005.

Bird Drive Recharge Area. This separable element, whose purpose was to recharge groundwater and reduce seepage from the ENP buffer area by increasing water elevations east of Krome Avenue in western Miami-Dade County, has been incorporated into the Everglades National Park Seepage Management Project.

Biscayne Bay Coastal Wetlands. This project incorporates the L-31 East Flow Redistribution Critical project. The Biscayne Bay Coastal Wetlands project is necessary to properly distribute freshwater flows to the estuary, and includes five sub-components in southeast Miami-Dade County: Deering Estate Flow-way, Cutler Wetlands, L-31 East Flow-way, North Canal Flow-way, and Barnes Sound Wetlands. The Biscayne Bay Coastal Wetlands has been established as one of the Acceler8 efforts; the portions being accelerated are the northern Deering Glade and Cutler Wetlands. The Tentatively Selected Plan is scheduled to be completed by the PDT in August 2005. The Alternative Formulation Briefing is expected to be held in January 2006, and the Draft PIR/EIS is anticipated to be published in the Federal Register in July 2006.

Broward County Secondary Canal System. The Broward Secondary Canal System project will reduce water shortages in local wellfields and stabilize saltwater interface. The project includes a series of water control structures, pumps, and canal improvements in the C-9, C-12, and C-13 canal basins and the east basin of the North New River Canal in Broward County. This project has not started.

Broward County Water Preserve Area. The Broward WPA project features the C-9 Impoundment and STA, which will encompass 1,739 acres at a depth of four feet; the C-11 Impoundment, which includes Compartment A (1,477 acres and four feet deep) and Compartment B (218 acres and two feet deep); a Seepage Management Area, which includes a buffer strip and three structures; and North New River Channel modifications from the C-11 Impoundment to the Seepage Management Area. The Draft PIR/EIS is scheduled to be released for Public Review in October 2005 and is expected to be noticed in the Federal Register in November 2005. The Public Review period is scheduled to be completed in December 2005. The Final PIR is currently on schedule to be completed in April 2006. Pre-construction Engineering and Design activities on the C-9 Impoundment/STA, C-11 Impoundment, and Seepage Management Area features have commenced in accordance with the Acceler8 initiative. Construction is scheduled to begin on these features in summer 2006.

C-4 Structure. This component is a water control structure in the C-4 canal, just east of the intersection with the C-2 canal in Miami-Dade County. The purpose of this structure (S-380E) is to divert water south into the C-2 for groundwater wellfield recharge. This will provide more freshwater flows to the central Biscayne Bay area. The work is currently on hold and may be proposed under a separate authority or performed by the District.

C-43 Basin ASR – Part 2. The C-43 Basin Aquifer Storage and Recovery Part 2 project is the second part of the C-43 Basin Storage Reservoir and ASR component. The project includes ASR wells with a total capacity of approximately 220 million gallons per day and associated pre- and post-water quality treatment located in the C-43 Basin in Hendry, Glades, or Lee counties. This project has not started.

C-43 Basin Storage Reservoir – Part 1. The C-43 Basin Storage Reservoir – Part 1 project includes an above-ground reservoir with a total storage capacity of approximately 160,000 ac-ft, which will capture C-43 basin runoff and releases from Lake Okeechobee. The reservoir will be designed for water supply benefits, some flood attenuation, and water quality benefits. The PMP is under revision to reflect updated information that is needed to complete the PIR. The FSM was held in February 2005. The Guidance Memorandum was received in June 2005. The Alternative Formulation Briefing is scheduled for October 2005, and the Draft PIR is scheduled to be published in the Federal Register in August 2006. This project is included in the District's Acceler8 initiative, with construction scheduled to begin in June 2007.

C-111 Spreader Canal. The C-111 Spreader Canal project will reestablish sheet flow and hydrologic connectivity between natural areas in the Southern Glades and Model Lands of Southern Miami-Dade County, resulting in improved hydropatterns and a sustainable ecosystem. Specific project features include a 3,200 acre STA, enlarging pump station S-332E, extending the originally proposed spreader canal to the Model Lands east of Card Sound Road, installing culverts under U.S. Highway 1 and Card Sound Road, backfilling part of C-111, removing S-18C and S-197, and backfilling C-110. The Feasibility Scoping Meeting was held in April 2005. The Basis of Design Report Notice to Proceed was issued in June 2005 and is expected to be completed in February 2006. It is anticipated that the USACE District Engineer will be briefed on the Tentatively Selected Plan in November 2005. The USACE is scheduled to hold an Alternative Formulation Briefing in March 2006. This project is included in the District's Acceler8 initiative, with construction scheduled to begin in November 2007.

Caloosahatchee Backpumping with Stormwater Treatment. The Caloosahatchee Backpumping with stormwater treatment project includes pump stations and an STA with a total capacity of approximately 20,000 ac-ft located in the C-43 basin in Hendry and Glades counties. This feature will capture excess C-43 basin runoff, which will be used to augment regional system water supply. This project has not started.

Central Lake Belt Storage Area. The Central Lake Belt Storage Area project includes pumps, water control structures, a stormwater treatment and a combination above-ground and in-ground storage reservoir with a storage capacity of approximately 190,000 ac-ft located in Miami-Dade County. The project will store excess water from WCA-2 and WCA-3 and provide environmental water supply deliveries to Northeast Shark River Slough, WCA-3B, and Biscayne Bay. This project has not started.

EAA Storage Reservoirs – Phase 1. This project is located in the Everglades Agricultural Area in western Palm Beach County on lands purchased in the Talisman Land Agreement. The objective of the EAA Storage Reservoirs project is habitat improvement of Lake Okeechobee and the estuaries and habitat improvement of the Everglades Protection Area (EPA). The 2000 WRDA conditionally authorized Phase 1, which is the construction of two 20,000-acre storage cells that will provide for 240,000 ac-ft of storage. Major milestones for the current PIR phase include completion of alternative evaluation and modeling in October 2004. Alternatives were compared in December 2004. The Tentatively Selected Plan was completed in May 2005. The Alternative Formulation Briefing is scheduled in August 2005, and the Draft PIR is expected to

be issued for Public Review in September 2005. The Final PIR is scheduled to be posted for Public Review in February 2006. This project is included in the District's Acceler8 undertaking, which will result in starting the initial construction phase in 2006; completion is scheduled for 2009, three years ahead of schedule.

EAA Storage Reservoirs – Phase 2. The 2000 WRDA conditionally authorized Phase 1 for the construction of two 20,000-acre storage cells. This project is the second part of the EAA Storage Reservoir component. Phase 2, which is not currently authorized, envisions an additional 20,000-acre storage cell in western Palm Beach County. This project will further improve the timing of environmental deliveries to the Water Conservation Areas, including reducing damaging flood releases from the EAA to the WCAs and reducing Lake Okeechobee regulatory releases to the estuaries.

Everglades National Park Seepage Management. The ENP Seepage Management project features a levee seepage management feature, which will be constructed in the vicinity of L-30/L-31N. Groundwater wells will be constructed to eliminate or return wet season canal underflow to the ENP. The relocation of the S-356, a Modified Water Deliveries structure, is possible to discharge sheetflow to the North East Shark River Slough. The Bird Drive Recharge Area has been incorporated into this project to recharge groundwater and reduce seepage from the Park by increasing water table elevations east of Krome Avenue; this facility will also provide C-4 flood peak attenuation and water supply deliveries to the South Dade Conveyance System and North East Shark River Slough. A site visit was conducted in June 2005. The public comment period on the PMP is currently in progress through August 2005 and is planned to be followed by approval by the USACE Project Review Board and District's Executive Director in September 2005, after which the approved plan will be available on the official CERP web site. The PIR phase is on schedule to be initiated during the first quarter of FY2006.

Florida Keys Tidal Restoration. The Florida Keys Tidal Restoration project includes the use of bridges or culverts to restore the tidal connection between Florida Bay and the Atlantic Ocean in Monroe County. With the exception of the baseline monitoring collection effort, which has progressed under an external contract, this project was placed on hold during FY2004 pending implementation of the MISP. All other work on delivery of PIR products has been halted at the direction of the USACE.

Flow to Eastern Water Conservation Area. The purpose of the Flows to Eastern Water Conservation Area project is to attenuate high stages in WCA-2 and WCA-3 and transport this excess water to the Central Lake Belt Storage Area where it will be stored to meet downstream demands in WCA-3B. This project is not currently authorized.

Flow to Northwest and Central WCA-3A. This project includes relocation and modifications to pump stations and development of a spreader canal system in WCA-3A in western Broward County in order to increase environmental water supply availability, increase depths, and extend wetland hydropatterns. The PMP was initiated in October 2002, but was stopped in March 2003, and has remained on hold throughout FY2004 and FY2005. This project is not currently authorized.

Hillsboro Aquifer Storage and Recovery – Part 2. The Hillsboro ASR – Part 2 project includes a series of ASR wells with a total capacity of approximately 150 million gallons per day and associated pre- and post-water quality treatment, which will be located adjacent to the reservoir or along the Hillsboro Canal. The purpose of this project is to supplement water deliveries to the Hillsboro Canal during dry periods, thereby reducing demands on Lake Okeechobee and the Refuge. This project has not started and is not currently authorized.

Indian River Lagoon–South. The Indian River Lagoon – South project provides the opportunity to meet wetland restoration and spatial extent goals of CERP in Martin, St. Lucie, and Okeechobee counties. More than 36,000 acres of land, or 31 percent of the total project, is in public control. Project authorization is expected in fall 2005. The C-44 reservoir and STA design is ongoing under the Acceler8 initiative, with test cell construction scheduled to begin in February 2006, and construction of the reservoir and STA to start in June 2007. Prior to plans and specifications, the C-23/C-24 reservoir and STAs surveys, geotechnical investigations, and cultural resource investigations are in progress. Land acquisition, design, and construction for the Allapattah Natural Storage Area also are in progress. Construction work at Allapattah includes prescribed burns, ditch filling and plugging, removal of exotic and invasive plant species, and planting of native pine seedlings.

Lake Istokpoga Regulation Schedule. The Lake Istokpoga Regulation Schedule Review Project was incorporated into the Lake Okeechobee Watershed Project, which will enable efficient consideration of operational and structural solutions that address water resources issues in both lakes.

Lake Okeechobee Aquifer Storage and Recovery. The Lake Okeechobee ASR project will provide additional regional storage while reducing evaporation losses and the amount of land removed from current use that normally is associated with above-ground reservoirs. This project, authorized under the 1999 WRDA, will increase the lake's water storage capability to better meet water supply demands. It will manage a portion of regulatory releases from the Lake, primarily to improve Everglades hydropatterns and to meet supplemental water supply demands of the Lower East Coast. This project will reduce harmful regulatory discharges to the St. Lucie and Caloosahatchee estuaries and maintain and enhance the existing level of flood protection. This project has not started.

Lake Okeechobee Watershed. The goals of the Lake Okeechobee Watershed project are to provide for better management of lake water levels, improve lake water quality, reduce damaging releases to the estuaries, restore isolated wetlands in the watershed, and resolve water resource problems in Lake Istokpoga. The PDT is currently developing plans that meet updated cost estimates and looking for opportunities to maximize performance and minimize costs, while maximizing phosphorus load reduction, improving lake water management, improving the ecology of Lake Istokpoga, maintaining water supply, and containing costs.

Loxahatchee National Wildlife Refuge Internal Canal Structures. The Refuge Internal Canal Structures project includes two water control structures in the perimeter canals encircling the Refuge in Palm Beach County, in order to improve the timing and location of water depths within the Refuge. This project has not started and is not currently authorized.

Melaleuca Eradication and Other Exotic Plants. The Melaleuca Eradication and Other Exotic Plants project is a two-part plan to enhance efforts to control invasive exotic plant species in South Florida. This project includes the mass rearing and controlled release of biological agents throughout South Florida, and preparing a report to further identify the overall problem with exotic invasive plants and providing recommendations on further federal involvement. The PMP was approved by the District in January 2005, and the Work-in-Kind letter was signed by the USACE's District Engineer in February 2005.

Modify Holey Land Wildlife Management Area Operation Plan. This project consists of a modification to the current operating plan for Holey Land Wildlife Management Area (WMA) to implement rain-driven operations for this area. These new operational rules are intended to

improve the timing and location of water depths within this WMA. This project has not started and is not currently authorized.

Modify Rotenberger Wildlife Management Area Operation Plan. This project consists of a modification to the current operating plan for Rotenberger WMA to implement rain-driven operations for this area. These new operational rules are intended to improve the timing and location of water depths within the Rotenberger WMA. This project has not started and is not currently authorized.

North Lake Belt Storage Area. This project includes canals, pumps, water control structures, and an in-ground storage reservoir with a total capacity of approximately 90,000 ac-ft located in Miami-Dade County. The purpose of this project is to capture and store a portion of the stormwater runoff from the C-6, Western C-11, and C-9 basins. This project has not started and is not currently authorized.

North Palm Beach County – Part 1. The PMP was completed during FY2005. The Final Report for the L-8 Reservoir Test was completed in the second quarter of this fiscal year, and conceptual design was started for the L-8 Reservoir Pump Station. In the fourth quarter of FY2005, the District will start construction on the G-161 structure and on widening the M canal. For FY2006, design of the L-8 pump station will be completed and the Tentatively Selected Plan will be identified during the second quarter. In the fourth quarter of FY2006, the USACE will hold an Alternative Formulation Briefing, and the District will start construction of the L-8 pump station and complete construction of the G-161 structure.

North Palm Beach County – Part 2. This project includes six separable elements including Pal-Mar and J.W. Corbett Wildlife Management Area Hydropattern Restoration, L-8 Basin Modifications, C-51 and L-8 Reservoir, Lake Worth Lagoon Restoration, C-17 Backpumping and Treatment, and C-51 Backpumping and Treatment. These separable elements have been combined into a single project to address the interdependencies and tradeoffs between the different elements and provide a more efficient and effective design of the overall project. This project has not started and is not currently authorized.

Palm Beach County Agricultural Reserve Reservoir – Part 1. This project includes ASR wells with a total capacity of 75 million gallons per day and associated pre- and post- water quality treatment located adjacent to the reservoir. The purpose of this project is to supplement water supply deliveries for central and southern Palm Beach County by capturing and storing excess water currently discharged to the Lake Worth Lagoon. This project has not started and is not currently authorized.

Site 1 Impoundment. The purpose of this project is to supplement water deliveries to the Hillsboro Canal by capturing and storing excess water currently discharged to the Intracoastal Waterway. These supplemental deliveries will reduce demands on Lake Okeechobee and the Refuge. The impoundment pool will also provide groundwater recharge, reduce seepage from adjacent natural areas, and prevent saltwater intrusion by releasing impounded water back to the Hillsboro canal when conditions dictate. Some measure of flood protection may be provided along with water quality improvements. Plan formulation and PIR and NEPA activities continued on schedule during FY2005 for this project, and are expected to be complete during the fourth quarter. Pre-construction Engineering and Design activities have commenced in accordance with the Acceler8 program, and construction is scheduled to begin in summer 2006. [Also, see the *Acceler8* section for additional information].

Southern Golden Gate Estates (Picayune Strand) Hydrologic Restoration. This project includes a combination of spreader channels, canal plugs, road removal, and pump stations in the Western Basin and Big Cypress, Collier County, south of I-75 and north of U.S. 41 between the Belle Meade Area, and the Fakahatchee Strand State Preserve. The purpose of this project is to restore and enhance the wetlands in Golden Gate Estates and in adjacent public lands by reducing overdrainage. Implementation of the restoration plan will also improve the water quality of coastal estuaries by moderating the large salinity fluctuations caused by freshwater point discharge of the Faka Union Canal. The Final PIR was published in the Federal Register in the first quarter. The Chief Engineer's Report was issued in June 2005. The Assistant Secretary of the Army for Civil Works Report is expected to be submitted to the U.S. Congress by the fourth quarter of FY2005. Although this CERP component requires congressional authorization for construction, engineering and design, construction of Prairie Canal, and the Cultural Resource Survey are under way. [Also, see the *Acceler8* section for additional information].

Strazzulla Wetlands. This separable element includes water control structures and the acquisition of 3,335 acres in Palm Beach County to provide a hydrological and ecological connection to the Refuge and expand the spatial extent of protected natural areas. This land will act as a buffer between higher water stages to the west and lands to the east that must be drained. This increase in spatial extent will provide vital habitat connectivity for species that require large unfragmented tracts of land for survival. It also contains the only remaining cypress habitat in the eastern Everglades and one of the few remaining sawgrass marshes adjacent to the coastal ridge. This project was placed on hold in the second quarter of FY2005.

WCA 2B Flows to ENP. This project is comprised of two components: WCA-2B Flows to Central Lake Belt Storage Area and Central Lake Belt Storage Area (L-30 partial). The purpose of the first component is to attenuate high stages in WCA-2B and divert excess water primarily to Northeast Shark River Slough and eventually to Central Lake Belt Storage Area via pump station, culverts, canals, and conveyance features. A part of this component consists of the improvements to L-37 and L-33 borrow canals (renamed C-500A and C-500B, respectively) to enable excess flow. The Central Lake Belt Storage Area will require the upgrade of the L-30 borrow canal and a revision of its purpose. Initially, the L-30 borrow canal would make dry-season deliveries to the South Dade Conveyance System via C&SF L-31N system, south of US-41 (Tamiami Trail). However, it will now be upgraded to convey regional natural system deliveries to the Northeast Shark River Slough, while still maintaining its primary purpose in reducing seepage loss from WCA-3B area. As a result, the L-30 canal will be redesignated as the C-501 canal and C-503 canal, or the Dade Broward Levee Canal will make deliveries to the South Dade Conveyance system

WCA-3A and 3B Flows to Central Lake Belt. The purpose of this project is to divert excess water above the target depths from WCA-3A/3B to the Central Lake Belt Storage Area or Shark River Slough (on an interim basis) via C-500A and C-500B canals (improved L-37 and L-33 borrow canals, respectively). Excess water will be diverted via modified structures at S-9 and S-31.

WCA-3 Decompartmentalization and Sheetflow Enhancement – Part 2. Part 2 of the WCA-3 Decompartmentalization and Sheetflow Enhancement Project includes the modification or removal of levees, canals, and water control structures in WCA-3A in western Broward County. The compartmentalization of the WCAs contributed to the loss of historic overland flows of the central Everglades slough system, which resulted in temporal changes in hydropatterns and hydroperiods in the historic deepwater, central axis of the Shark River Slough system. This component adds conveyance to WCA-3B to help reestablish natural hydroperiods and

hydropatterns in the WCAs and Shark River Slough by backfilling the southern 7.5 miles of the L-67A borrow canal, removing the L-68A, L-67C, the western portion of L-29 below WCA-3A, L-28, and L-28 tieback levees and borrow canals, and elevating the western portion of Tamiami Trail below WCA-3A. Eight passive weir structures will be located along the length of L-67A to promote sheetflow from WCA-3A to WCA-3B during high flow conditions and water control structures will be added to the southern end of L-67A to allow for flow during extreme dry events. These features will reestablish the ecological and hydrological connection between the ENP, WCA-3A and 3B, and Big Cypress National Preserve.

Water Preserve Area Conveyance. This project relates to two components: Dade Broward Levee and Canal and the turnpike deliveries associated with the North Lake Belt Storage Area. A new conveyance canal will be constructed east of the Dade-Broward Levee Canal where the existing canal presently connects to the wellfield protection canal. In lieu of using the Florida Turnpike Canal, this new canal will convey regional water supply deliveries from Lake Okeechobee to the C-2, C-4, C-6, and C-7 canals and the South Dade Conveyance System. This feature will reduce seepage to the east from the Pennsuco wetlands and southern WCA-3B; enhance hydroperiods in the Pennsuco Wetlands; provide recharge to the Miami-Dade County's Northwest Wellfield; and convey regional water supply deliveries south to Miami-Dade County.

Other CERP Projects Not Sponsored Locally by the SFWMD

Henderson Creek/Belle Meade Restoration. The area known locally as Belle Meade in Collier County is the primary drainage basin for the Henderson Creek Estuary and is targeted for acquisition by the FDEP, the local sponsor of this project. A design agreement is pending to allow return of a portion of the historic timing, duration, and volume of freshwater inflow to estuarine areas, and to assure long-term protection of the upland and wetland communities associated with the area.

Lakes Park Restoration. The Lakes Park Restoration will improve water quality at Lake Park and downstream conditions in Hendry Creek. This project will ensure overall watershed biodiversity and federal wildlife resources are protected and enhanced. Aquatic and upland exotic plant species will be controlled and removed. Resource-based recreational opportunities compatible with the protection of the natural system will be provided. Lee County is the local sponsor for this project, and is providing in-kind services including water quality data collection and real estate coordination. The PIR was initiated in July 2005, and Final Screening of alternatives is scheduled for September 2005. The Draft PIR is scheduled to be completed by December 2006.

Miccosukee Water Management Area. The Miccosukee Water Management Area is a project to construct a managed wetland on the Miccosukee Tribe's Alligator Alley Reservation in western Broward County. The purpose of the project is to provide water storage capacity and water quality enhancement for waters which discharge into the EPA. The project will convert approximately 900 acres of tribally owned cattle pastures into a wetland retention/detention area, which will be designed to filter out harmful nutrients contained in stormwater runoff before the water enters the EPA. A design agreement is pending for this project.

Restoration of Pineland and Hardwood Hammocks in C-111 Basin. The project is located in south Miami-Dade County, just east of the ENP, along State Road 9336 in the area known as the Frog Pond. Eighty percent of the Frog Pond was used for agricultural purposes and the cap rock was plowed to create soil for tomato farming. The Frog Pond was since purchased by the District as part of the C-111 project to restore the Taylor Slough portion of the Everglades. The

project involves restoring approximately 50 acres of South Florida slash pine and tropical hardwood hammock species on a 200-foot wide strip on each side of the two miles of State Road 9336 from the C-111 canal to the L-31W to demonstrate the techniques required to reestablish native conifer and tropical hardwood forests on land that has been rock plowed.

South Miami-Dade Reuse. This feature includes a plant expansion to produce superior, advanced treatment of wastewater from the South District Wastewater Treatment Plant north of the C-1 Canal in Miami-Dade County. The initial design assumed that the plant will have a capacity of 131 million gallons per day. Detailed analyses are required to determine the quality and quantity of water needed to meet the ecological goals and objectives of Biscayne Bay. Due to water quality concerns associated with discharging reclaimed water into Biscayne National Park, an Outstanding Florida Water, other potential sources of water to provide required freshwater flows to southern and central Biscayne Bay will be investigated. The purpose of this feature is to provide additional water supply to the South Biscayne Bay and Coastal Wetlands Enhancement Project. Superior water quality treatment features will be based on appropriate pollution load reduction targets necessary to protect the downstream receiving surface waters of the Biscayne Bay.

West Miami-Dade Reuse. This feature includes a wastewater treatment plant expansion to produce advanced treatment of wastewater from a future West Miami-Dade Wastewater Treatment Plant to be located in the Bird Drive Basin in Miami-Dade County. The initial design assumed a potential discharge volume of 100 million gallons per day from the plant. The final configuration will be determined through detailed planning and design to be completed in the ongoing West Dade Reuse Feasibility Study, which was authorized in the 1996 WRDA. Superior water quality treatment features will be based on appropriate pollution load reduction targets necessary to protect downstream receiving surface waters.

Winsberg Farms Wetlands Restoration. The Winsberg Farms project, for which Palm Beach County is the local sponsor, will restore wetlands in Palm Beach County, reduce the amount of treated water wasted in deep injection wells, create a wetland that recharges the local aquifer, and create a new, ecologically-significant wildlife habitat. This project will create 150 acres of wetlands using water from the Palm Beach County Southern Region Water Reclamation Facility in the vicinity of the Wakodahatchee Wetland in Southern Palm Beach County. PIR and NEPA activities were under way during FY2005. The Alternative Formulation Briefing was held in March 2005. Development of the Operating Manual and Monitoring Plan documents has been initiated. The Draft PIR/NEPA Report is forecast to be published in the Federal Register during the first quarter of FY2006.

CERP Precursor Project

Modified Water Deliveries to Everglades National Park. The Modified Water Deliveries Project (Mod Waters) was authorized by the U.S. Congress in 1989 to improve water delivery to the ENP. Mod Waters, heralded as the first Everglades restoration effort by the USACE, is of interest because it will restore more natural flow through the Everglades, and because its completion is required before the implementation of portions of CERP. The 1992 General Design Memorandum (GDM) for this project that was sent to the U.S. Congress anticipated project completion within five years, and the 1989 act that authorized the project instructed the U.S. Department of the Interior to acquire all the Park expansion area lands necessary to implement the project within five years. Land acquisition continues at present, mainly because the use of eminent domain to acquire land for flood control adjacent to the Park proved controversial; and unwilling sellers obtained a ruling in federal court preventing further acquisitions in the area. Upon appeal of this decision, the U.S. Congress authorized a plan that included land acquisition in the Consolidated Appropriations Resolution for FY2003. To address concerns regarding phosphorus pollution in the Everglades, the U.S. Congress enacted provisions in the FY2004 and FY2005 Interior Appropriations Acts that condition funding for Mod Waters upon meeting state water quality standards. The completion status of the Mod Waters project is as follows:

- Constructed S-355A and S-355B in the L-29 levee
- Raised Tigertail Camp
- Degraded the lower four miles of the L-67 extension canal and levee
- Constructed S-356 pump station for seepage control
- Implementing Alternative 6D for the 8.5 Square Mile Area
- Finalizing the Draft General Reevaluation Report/Environmental Impact Statement for Tamiami Trail Modifications
- Evaluating conveyance features under the Combined Operational and Structural Plan

The last alternative is currently being formulated and the Tentatively Selected Plan milestone will be achieved in November 2005. The Design Contract for Osceola Camp will be issued by the U.S. Department of Energy in FY2006.

LEGAL FRAMEWORK

Section 373.470(7), Florida Statutes, requires the submission of a single CERP Annual Report from the SFWMD and the FDEP.

Section 601(h) of the Water Resources Development Act of 2000 states that the overarching purpose of the Comprehensive Plan is the restoration, preservation, and protection of the South Florida ecosystem, while providing for the other water-related needs of the region including water supply and flood protection. The subsection, entitled "Assurances of Project Benefits," directs that the plan be implemented to achieve and maintain the benefits to the natural system and human environment described in the plan. As part of these assurances, Section 601(h) requires that the Secretary of the Army promulgate programmatic regulations to ensure that the goals and purposes of the Comprehensive Plan are achieved. Section 601(h) requires that these programmatic regulations be developed within two years of the date of enactment; after notice and opportunity for public comment; with the concurrence of the governor and the secretary of the interior; and in consultation with the Seminole Indian Tribe of Florida; the Miccosukee Tribe of Indians of Florida; the administrator of the USEPA; the secretary of commerce; and other federal, state, and local agencies.

The Everglades Forever Act, which was passed by the Florida Legislature in 1994, replaces the Marjory Stoneman Douglas Act.

The Everglades National Park Expansion and Protection Act of 1989 authorized the acquisition of 109,000 acres in Northeast Shark Slough and the East Everglades; and authorized modifications to the C&SF Project "to improve water deliveries into the park and shall, to the extent practicable, take steps to restore the natural hydrologic conditions in the Park."

The Preservation 2000 Trust Fund was created in 1990 (Section 259.101, F.S.)

The Water Resources Development Act of 2000 (2000 WRDA, Public Law 106-541) requires that the CERP be integrated with existing federal and state activities in accordance with the 1996 WRDA, Section 528 (Public Law 104-303).

Water Resources Development Act of 1996, in Section 528, authorized the USACE to develop the Comprehensive Plan and requires that it be submitted to the U.S. Congress by July 1, 1999. It also authorizes the Critical Projects Program at a maximum federal cost of $75 million.

Water Resources Development Acts of 1992 and 1996 provide the USACE with the authority to reevaluate the performance and impacts of the C&SF Project, and to recommend improvements and modifications to it in order to restore the South Florida ecosystem and to provide for other water resource needs.

Comprehensive Plan: presented in the **C&SF Project Comprehensive Review Study, Final Integrated Feasibility Report and Programmatic Environmental Impact Statement**.

The Science Sub-Group Report, Federal Objectives for the South Florida Restoration (Science Sub-Group, 1993)

Everglades, the Ecosystem and Its Restoration (Davis and Ogden, 1994)

Ecosystems of Florida (Myers and Ewel, 1990)